

LITERATURE OF MANUFACTURERS

Catalogues, bulletins, and direct advertising material recently issued. Manufacturers are requested to send copies of new trade literature promptly to Electric Refrigeration News.

Acorn Opalite

The Acorn Opalite Metal Specialties Co., 1052-54 W. Monroe St., Chicago, Ill., manufacturers of cooling equipment for restaurants, have sent in a folder illustrating the Kelvair cooler which is especially adapted for electric refrigeration. A single Kelvair unit is shown along with detailed specifications as to its construction.

Bohn

An attractive new catalogue combining illustrations and descriptions of Bohn refrigerators for electric refrigeration is being distributed by the Bohn Refrigerator Co., St. Paul, Minn. This catalogue, number 28-3, features particularly the Bohn Sanitor series, available with or without bases and so designed that they are easily changeable from ice to electric refrigeration.

Monel

The International Nickel Co., 67 Wall St., New York City, is distributing a booklet entitled "Where Monel Metal Shines" which covers in an interesting way the uses of Monel Metal. A small sample of the metal as used for refrigerator trim is included in the booklet.

Oil-O-Matic

Three folders have been received from the Williams Oil-O-Matic Heating Corporation, Bloomington, Ill., one describing the Williams Ice-O-Matic electric refrigerator, another telling of the Williams Oil-O-Matic oil burner and the third describing the Williams Dist-O-Stove, a heater which burns distillate and is designed for small homes, cottages, camps, and flats that have no furnaces. Each folder is attractively done in colors.

Servel

Servel Sales, Inc., have released a new booklet especially prepared for them, entitled "The New and Easy of Making Delicious Ice Cream" which explains and illustrates the Sparklet aeration process recommended for Servel and Electrolux refrigerators.

Sparklets

A folder has been received from Sparklets, Inc., 19-25 W. 44th St., New York, N. Y., showing many of the uses of the Sparklet syphon. On the back page of the folder are twelve recipes to be prepared by the Sparklet syphon method.

Torfoleum

The characteristics of Torfoleum insulating material are given in a booklet issued by Pennrich & Co., Inc., 29 Broadway St., New York, N. Y. Four testimonial letters of users of Torfoleum are given along with many photographs of unusual applications of this insulation.

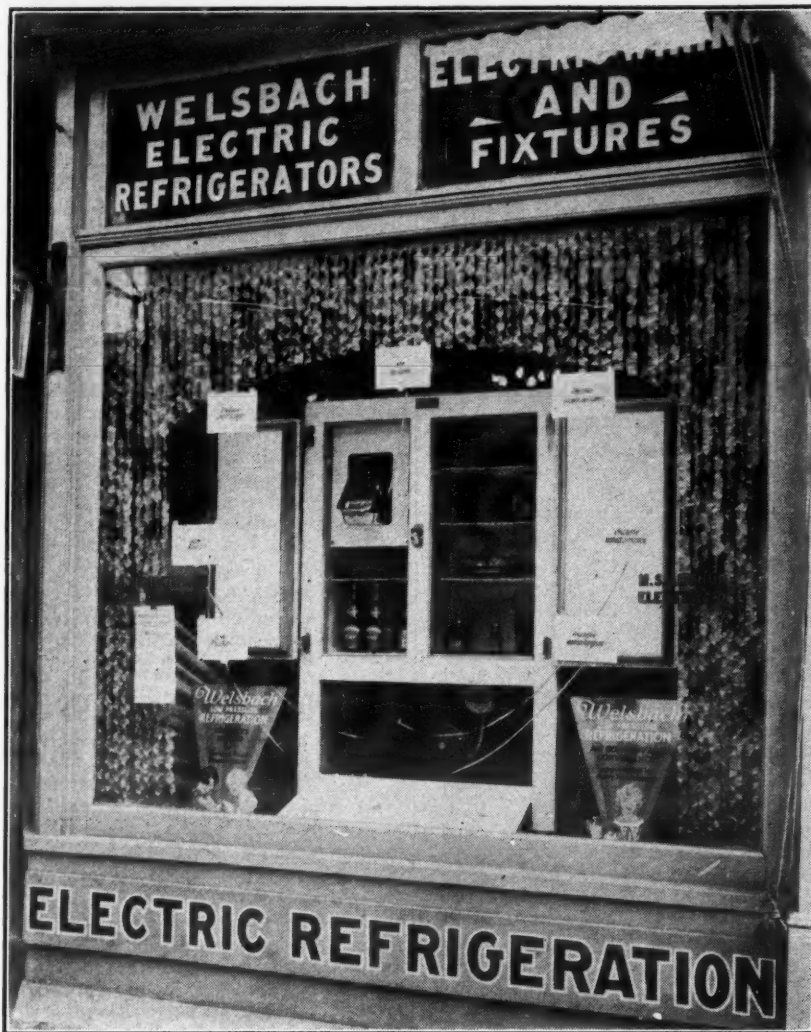
3,500 Units Sold by Cities Service Subsidiaries in First 6 Months

The public utility division of the Cities Service Co., New York, N. Y., through its subsidiaries, sold a total of 3,500 domestic and commercial electric refrigerators during the first six months of this year. These machines sold for approximately \$1,000,000.

East Stroudsburg Kelvinator Dealer Pushes Commercial Equipment

J. A. Seguire, 50 Washington St., East Stroudsburg, Pa., has been devoting special attention to Kelvinator commercial installations. He has recently installed Kelvinator units in the Hotel Rapids, J. C. Cincotta's Fruit Market and E. Deihl's Meat Market. East Stroudsburg is a town of less than 10,000 population.

Refrigerator in the Foreground Permits Close Inspection



This display by the Springfield Welsbach Electrical Refrigeration Co., Springfield, Mass., calls attention to the various features of the Welsbach electric refrigerator. Each of the small hand-lettered cards brings out a separate point and a ribbon running from the card back to the cabinet leads the attention of the passer-by to that particular feature. This firm will have associate dealers in Clark, Champaign, Greene, and Madison counties and will handle both installation and service from the Springfield office, at 48 West High street.

AIR CONDITIONING PLANTS OFFER DESIRABLE LOAD FOR CENTRAL STATIONS

The increasing importance of air conditioning equipment as a current consumer in the larger cities of the country is brought out in an article by A. D. McLay, sales engineer of the Detroit Edison Co., in an article headed "Finds Air Conditioning a Desirable Load" appearing in *Electrical World*.

With air conditioning systems in theaters now quite common, department stores, hotel lobbies, restaurants and office buildings are in a direct line to be so equipped.

According to the writer, the largest power-consuming element in an air conditioning system is the refrigerating unit and consequently the largest load is during the hot weather. As an example he cites the office buildings and theaters in Detroit having 3,450 tons of refrigeration and 6,200 H. P. in motors.

"Some idea of the load for air conditioning may be had," says Mr. McLay, "from knowing that a large department store will have 1,300 tons of refrigeration; all floors, of course, will not have conditioned weather. An office building covering half a city block and 25 stories high has fourteen floors conditioned and will have 600 tons of refrigeration. The average large theater has around 400 tons. These machines require about 1.8 H. P. in motors per ton of capacity, so it is evident that as the use of home-made weather spreads the motor load will grow accordingly."

"PLEASE CHANGE MY ADDRESS"

Recent movements of Electric Refrigeration News subscribers as indicated by requests for changes in mailing addresses.

Anderson, M. E., from Box 991, Williston, N. Dakota, to care Montana Dakota Power Co., Wolf Point, Mont.

Atlas, Maurice, from 519 Mt. Curve Blvd., St. Paul, Minn., to 2750 Aldrich Ave., Minneapolis, Minn.

Beamish, J. C., from 4038 Harwood Rd., South Euclid, Ohio, to care Kentucky-Tennessee Light & Power Co., Bowling Green, Ky.

Bedell, Louis, from care Western Refrigerating Co., 1081 Richmond St., to care Bedell Engineering Co., 1534 Sunset Blvd., Los Angeles, Calif.

Be'sey, Geo., from 444 10th Street, Santa Monica, Calif., to 515 N. Palm Drive, Beverly Hills, Calif.

B'air, J. C., from St. Andrews Hotel, Portland, Oreg., to 1415 Santa Fe Ave., Los Angeles, Calif.

Camper, S. D., from Camper-Mattingly & Co., 336 Starks Bldg., to P. O. Box 1049 Louisville, Ky.

Dunn, J. M., from Wheeling, W. Va., to 411 Jones St., Elm Grove, W. Va.

Eldridge, R. E., from 104 Howard St. to 100 Irving Street, Framingham, Mass.

Electric Refrigerator Co., from 318 S. Eighth St., to 318 So. Sixth St., Evansville, Ind.

Electric Utilities Co., from 540 Fairfield Ave. to 437 Howard Ave., Bridgeport, Conn.

Fried, A'ez., from 2728 McIntosh St., East Elmhurst, Long Island, N. Y., to 4270 156th St., Flushing, Long Island, N. Y.

Gifford, H. W., from 3821 Wilton Ave. to 1559 Sheridan Rd., Chicago, Ill.

Glendale Kelvinator Co., from 229 S. Brand Blvd. to 316 No. Brand Blvd., Glendale, Calif.

Green, Kenneth, from 13230 LaSalle Blvd. to 2009 S. LaSalle Gardens, Detroit, Mich.

Gunn, L. S., from 1001 No. Lowry Ave. to 1506 Aldrich Ave., No. Minneapolis, Minn.

Guyard Hardware Co., Inc., from 202 Bridge St. to 821 6th Ave., Huntington, W. Va.

Hammer & Schwarz, from 55 John Street to 80 John Street, New York, N. Y.

Horn, A. J., from 720 Warden Apartments, Fort Dodge Iowa to 493 West Pine St., Spencer Iowa.

Kelsey-Sinclair, Inc., from 278 Fulton Ave., Hempstead, Long Island, N. Y., to 86 Smith St., Jamaica, Long Island, N. Y.

Maginniss, Thos. H., from 3612 Center St., Des Moines, Iowa to 151 N. Michigan Ave., Chicago, Ill.

Monark Refrigerating Co., from 1244 West 61 Terrace to 2nd Floor Sweeney Bldg., Kansas City, Mo.

Lewis, James L., from P. O. Box 1533, Fort Lauderdale, Fla., to Marianna, Fla.

Lindberg, A., from 2451 Olinville Ave., Bronx, New York, N. Y., to 48 Beacon St., Brooklyn, N. Y.

Lively, T. S., from Illinois Refrigerator Co., 600 Euclid Ave., Glen Ellyn, Ill., to 106 1/2 So. 7th St., Goshen, Ind.

Quirk, E. E., from 911 Gd. Rapids Sava. Bank Bldg. to Box 639, Grand Rapids, Mich.

Refrigeration Corp. of America, from 10 High St. to 834 Commonwealth Ave., Boston, Mass.

Sartoris, C. E., from 1214-133 West Washington St., to 120 S. LaSalle St., Chicago, Ill.

Thelen, W. H., from 330 E. 33rd St., Paterson, N. J., to 198 Lafayette Ave., Hawthorne, N. J.

Whitehouse, Irving, from E. 605 13th Ave., to Box 732, St. Petersburg, Fla.

Whitsett, H. A., from 1078 Maryland Ave., Schenectady, N. Y., to care General Electric Co., Refrig. Engr., Dept. Winter Street Plant, Fort Wayne, Ind.

Wishart, W. W., from 2342 N. Kedzie Blvd., to 3741 Leland Ave., Ravenswood No. 2 Sta., Chicago, Ill.

COMING CONVENTIONS OF REFRIGERATION MEN

The National Association of Ice Industries will meet at the Book-Cadillac Hotel, Detroit, November 13-17. Leslie L. Smith, 163 W. Washington Street, Chicago, Ill., is secretary.

The National Association of Practical Refrigerating Engineers will meet in Louisville, Ky., November 20-23. E. H. Fox, 5707 W. Lake Street, Chicago, Ill., is secretary.

The American Society of Refrigerating Engineers will meet in New York City, December 3-5. David L. Fiske, 37 W. 39th Street, New York City, is secretary.

REQUESTS FOR INFORMATION

Readers who can assist in furnishing correct answers to inquiries or who can supply additional information are invited to address Electric Refrigeration News, referring to the query number.

Wants Small Steel Drums for Ammonia

Query No. 117—A manufacturer of electric refrigeration equipment in Chicago writes as follows: "Will you have the kindness to advise where we can obtain steel drums to hold two and a half to three ounces of ammonia?"

These are the same sort of drums that Copeland, Servel, Universal and a number of other manufacturers use in demonstrating the gases that they use as a refrigerant. Whenever there is a leak of ammonia in one of our machines, and for any reason at all it is necessary for our man to carry a small amount with him, it is our desire to use one of these drums."

Requests List of Manufacturers

Query No. 118—"I shall appreciate it greatly if you could, without inconvenience, send me a list of the companies now engaged in the electric refrigeration business."—R. C. T., Chicago.

A classified directory appeared in the June 6 issue, and an alphabetic list of manufacturers of machines, cabinets, materials and parts appeared in the March 28 issue. A revised directory will be run early in September.—Editor.

Another Request for a List of Manufacturers in the U. S.

Query No. 119—A distributor of oil heaters and electric refrigerators in Boston makes the following request: "Will you kindly mail me a list of all electric refrigeration manufacturers doing business in the States. I understand some previous issue of Electric Refrigeration News contained this information."

See reply to query No. 118 above.—Editor.

NEW DEALERS & DISTRIBUTORS

Recent appointments announced by manufacturers and new sales outlets reported from the field.

Servel

Distributors:
Atlas Supply Co., Muskogee, Okla. (Servel-Electrolux). Locke & Hess, Amarillo, Tex. (Servel-Electrolux). Heskamp & Klenke Co., Spearville, Kans. (Servel-Electrolux). Southwestern Light & Power Co., Oklahoma City, Okla. (Servel-Electrolux). Mola Washing Machine Co., Kansas City, Mo. (Servel-Electrolux). J. E. Stevens, Coleman, Tex. (Servel-Electrolux). Piper & Tait, Jr., Seattle, Wash. (Servel-Electrolux). Strandburg Music Co., Jamestown, N. Y. (Servel-Electrolux). Elizabethtown Consolidated Gas Co., Elizabeth, N. J. (Electrolux).

Dealers:
Central Pennsylvania Equipment Co., Williamsport, Pa. (Servel-Electrolux). Berdon-Campbell Furniture Co., Ltd., Lake Charles, La. (Servel). C. H. Bradway, Glenn Falls, N. Y. (Servel-Electrolux). Schaefer Hardware Co., Appleton, Wis. (Servel-Electrolux). Iron Mountain Gas Co., Iron Mountain, Mich. (Electrolux). Lanning Music Co., Winfield, Kans. (Servel). Misener Motor Co., Mazon, Ill. (Servel). Chas. H. Schumann, Inc., Briarcliff Manor, N. Y. (Electrolux). C. Biggerstaff, El Paso, Tex. (Servel-Electrolux). Hadaway & Son, Thomson, Ga. (Servel). Steam Electric Eng. Co., Wheeling, W. Va. (Servel-Electrolux).

Copeland

Dealers:
Peerless Electric Co., 1810 North Ave., Milwaukee, Wisc. G. A. Butter Hardware Co., 603 Mitchell St., Milwaukee, Wisc. M. Pelham, New Harmony, Ind.

Welsbach

Distributors:
Tiger Corp., 137 Arlington St., Chelsea, Mass. Midland Engineering Corp., 300-6 Board of Trade Bldg., Norfolk, Va.

Associate Dealers Under Distributors:
Charles E. Stewart, Fort Fairfield, Maine. Miller & Gramling Co., Ashland & Fulton Sts., Toledo, Ohio. Ayers Electric Shop, Dexter, Maine. Grant & Winchell, 277 Main St., Bangor, Maine. Oshkosh Maytag Store, Inc., 16 Main St., Oshkosh, Wisc. Shanahan Electric Shop, 1805 Broadway St., Troy, N. Y.

Display Dealers Under Branches:
Kolb Electric Co., 639 Broadway St., Bedford, Ohio. R. J. Foster, 917 Penn Ave., Turtle Creek, Pa. Orr Co., Easton, Pa.

Frigidaire

Dealers:
Glynn Electric Co., Brunswick, Ga.

Sparklets

Distributors:
Eastern Service Co., 250 Stuart St., Boston, Mass. Electric Refrigeration Co., Inc., 120 E. 8th St., Chattanooga, Tenn. Bouton, Hardy & Waddington, Cinno Bldg., Salisbury, Md.

THE CONDENSER

ADDRESS REPLIES to box advertisements to Electric Refrigeration News, 554 Maccabees Building, Detroit, Mich.

ADVERTISING RATE fifty cents per line (this column only).

SPECIAL RATE if paid in advance—Positions Wanted—fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion \$3.00, additional words six cents each. Three insertions \$8.00, additional words sixteen cents each.

POSITIONS WANTED

ENGINEERING EXECUTIVE

Connected with electric refrigeration for ten years, desires connection with responsible manufacturer in temporary or permanent capacity as consulting or chief engineer. Capable of taking complete charge of engineering and manufacturing. Inventor and owner of widely used patents. Well acquainted with patent situation. Box 52.

Service engineer, domestic and commercial electric refrigeration. Over 6 years' experience in sales, estimates, installations and service. Prefer Kelvinator or Servel. Would like to locate in North or Northeastern part. Box 99.

Sales engineer desires new connection with chance of advancement. Graduate engineer with good background of experience in the sales and application of refrigeration. Experienced in training and managing salesmen and service men and development of equipment for special applications. Box 98.

POSITIONS AVAILABLE

SALES EXECUTIVE: We want a man with contacts and with a successful selling experience to take entire charge in United States of the selling of a household Electric Refrigerator of proven merit. We want a high-class man with a following. Address Box 97.

SERVICE MANAGER—An opportunity for a thoroughly reliable and well-seasoned service manager is available with The Kelvinator-Cleveland Company. The man selected for this position must be able to direct his organization in a business-like and effective manner, must not be afraid of work or hours, be able to handle domestic, commercial and apartment house installations, back up the sales organization with real ability, have sales sense and know how to handle customers. Remuneration satisfactory to man possessing these qualifications. Write to General Manager, 2106 Euclid Ave., Cleveland.

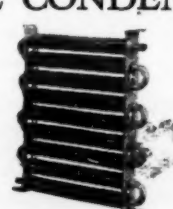
Refrigeration Service Co., Inc.
SERVICE SPECIALISTS—Installations, Alterations, Repairs, Inspection, Reconditioning, Maintenance
New York City Tel.: Chickering 0460
Nights, Sundays or Holidays,
Susquehanna 4500
Office and Works Warehouse
449 West 42nd St. 281 11th Ave.

Balsam-Wool INSULATION
Efficient, Light Weight, Odorless, Flexible
For samples and complete information address
WOOD CONVERSION COMPANY
360 N. Mich. Ave., Chicago. Mills at Cloquet, Minn.

DRINKING WATER FAUCETS
for
Refrigerators - Water Coolers
Cordley & Hayes
1 Leonard St. New York City

LEADING Refrigerator manufacturers use Monel Metal screws with Monel Metal trim.
Write for details to
The International Nickel Company (Inc.)
67 Wall Street New York, N. Y.
MONEL METAL

REFRIGERATION PATENTS
SPECIALIST IN HOUSEHOLD MACHINES AND WATER COOLERS, INVESTIGATIONS, REPORTS, SEARCHES. SPECIAL ATTENTION PAID TO ASSOCIATE WORK.
H. R. VAN DEVENTER
SOLICITOR OF PATENTS
342 Madison Ave.
NEW YORK CITY

Specify ROME CONDENSERS

One Piece Construction
Rome Turney Radiator Co.
ROME, N. Y.

Subscription Order

ELECTRIC REFRIGERATION NEWS,
554 MACCABEES BUILDING, DETROIT, MICH.

Please enter my subscription to Electric Refrigeration News.

United States and Possessions:

☐ \$1.50 per year. ☐ Three years for \$3.00.
(After Sept. 12—\$2.00 per year, 3 years for \$5.00)

All other Countries:

☐ \$1.75 per year. ☐ Two years for \$3.00.
(After Sept. 12—\$2.25 per year, 2 years for \$4.00)

I am enclosing payment in the form of

☐ Check ☐ P. O. Order ☐ Cash

Name

Street Address

City and State

Remarks:

ELECTRIC REFRIGERATION NEWS

The business newspaper of the electric refrigeration industry

VOL. 2, No. 26, SERIAL No. 50

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DETROIT, MICHIGAN, AUGUST 29, 1928

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1927, at the Post Office, Detroit, Michigan.

PRICE TEN CENTS

500 UNITS GOAL IN "BIG BOX" CAMPAIGN BY G. E. DISTRIBUTOR

Successful Drive Staged to Get Commercial Business

FOUR hundred sixty-three of the five hundred quota in the "Big Box" campaign of the Newark distributor of General Electric refrigerators, was the standing on August 29. This left two days of the 90-day campaign. The drive was instituted by the "On The Top" club of the General Electric Co. and the New Jersey dealer was the first to start the campaign.

On June 1, the Philip H. Harrison & Co. began this campaign to stimulate the sales of semi-commercial installations.

Cash prizes amounting to \$500.00 will be awarded to the five salesmen scoring highest in the sales of the boxes designated for the drive. The boxes with the points they credit the salesman are: R-9, 4750; RL-9, 4950; P-9, 5200; PL-9, 5400; P-12, 5700; PL-13, 5950; PY-17, 6700; DX-18, 12,500. The prizes will run \$250.00, \$150.00, \$75.00, \$50.00, and \$25.00.

Neighboring Distributors Were Guests at Monday Evening Sales Meetings

Salesmen meetings were held once a week on Monday evenings. At each meeting a neighboring distributor organization was guest. The guests were Rex Cole, Inc., New York distributor; Judson C. Burns, Philadelphia distributor; Modern Home Utilities, Connecticut distributor; Newton & Parsons, New Hampshire distributors; Charles P. Dow, Boston, Mass., and Isaac Carlin, the man who won first prize in the General Electric nation-wide \$8,000.00 "Over The Top" contest; P. B. Zimmerman, Gus Mayer and others from the General Electric Co. at Cleveland.

A special arrangement was made with the Morris Plan Co. of New York, whereby the General Electric Co. was able to secure for this campaign a very attractive finance plan, spreading over a period of eighteen months. The model, list price, down payment and monthly payments were:

| Model | List Price | Down Payment | 18-Month Payment |
|-------|------------|--------------|------------------|
| R-9 | \$ 475.00 | \$ 45.00 | \$26.00 |
| RL-9 | 495.00 | 50.00 | 27.00 |
| P-9 | 545.00 | 50.00 | 30.00 |
| PL-9 | 565.00 | 55.00 | 31.00 |
| P-12 | 600.00 | 60.00 | 33.00 |
| PL-13 | 625.00 | 65.00 | 34.00 |
| PL-17 | 705.00 | 75.00 | 38.00 |
| PL-18 | 1500.00 | 180.00 | 80.00 |

These figures applied only for the duration of the campaign and will not cover DR-2 equipment.

Dealers completely rearranged their display floors bringing out the larger type models and putting them in position where they would attract the attention of the customer as he entered the store. Most of them were kept in operation and this gave opportunity for testing before the box was delivered to the customer.

Tie-ups were made with other dealers in order that as much advertising as possible would deal with the larger type boxes. Newspaper space was used extensively.

Two-piece direct by mail advertising was sent to all prospects by General Electric Co. The salesmen were given every possible help in having complete selling data, price lists, and salesman's manuals. The salesmen were urged to check their prospect lists and call on every prospect. Care was taken to see that the salesmen were familiar with the approximate cost of operation, method of operation and the many other things that customers ask about.

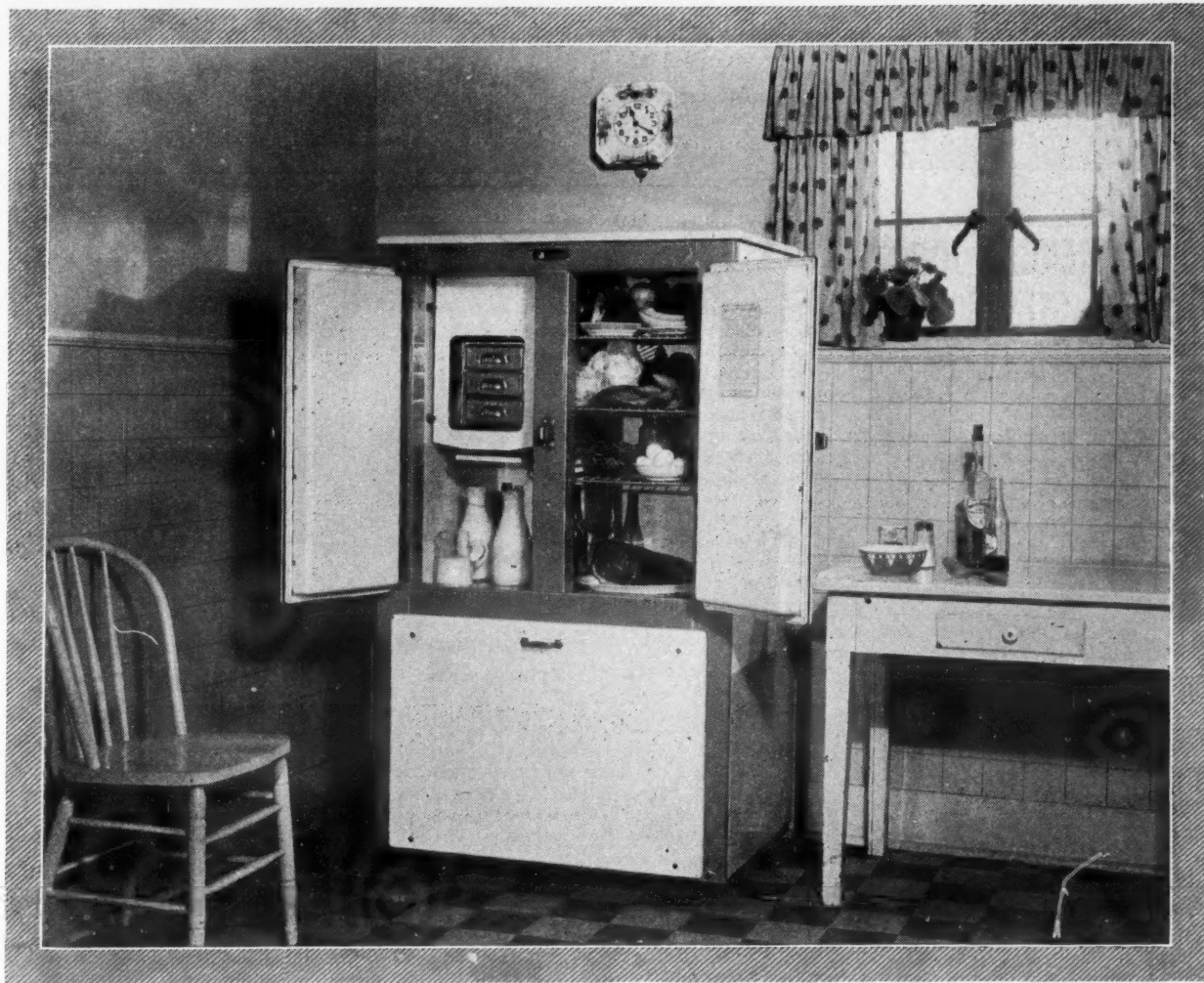
Daily reports were kept on special forms. Each week every salesman received a score sheet showing his standing to date. He also received bulletins, principally humorous in nature, giving information of the campaign and adding spirit to the contest.

R. H. HITE NAMED ZEROZONE SALES PROMOTION MANAGER

The Iron Mountain Co., of Chicago, announces the appointment of R. H. Hite as sales promotion manager of Zerozone electric refrigeration. Mr. Hite comes from the Wahl-Eversharp Co., of Chicago, where he filled a similar capacity.

Mr. Hite believes great expansion can be brought about in the electric refrigeration industry by perfecting the resale methods carried on by the distributors and dealers. He points out that electric refrigeration receives more free advertising by word of mouth than almost any other item on the market, and that there is no reason why it should not come to be a necessity in every home in the near future.

Frigidaire Presents the 1929 Model



Perhaps the most noticeable change appearing on the new model Frigidaires is the absence of louvers in the front of the cabinet base. The necessity for these has been eliminated by the use of a forced draft which expels the heat through an opening in the rear. New one-quarter and one-sixth H. P. compressors, which are said to be unusually quiet in operation, supplant the "S" and "G" compressors used in preceding models. According to the advertisements, "You don't hear it start, you don't hear it stop, you don't hear it run."

DRY ICE BEING USED IN NEW MERCHANDISING PLAN FOR ESKIMO PIE

Refrigeration Service to Dealers in Highly Perishable Product

REFRIGERATION, used in connection with a servicing plan, is pointed out as a large factor in the comeback of the popularity of the Eskimo Pie in an article in *Printers Ink* of August 23, "New Merchandising Again Pushes Eskimo Pie to the Forefront."

Because of the extreme perishable qualities of the product, maintenance at the required temperature constituted the principal problem. And to this problem Richard S. Reynolds, president of the United States Foil Co. of Louisville, Ky., who recently purchased the Eskimo Pie Co., devoted his attention. He believed that the largest benefits would be obtained from controlled service, distribution, quality, and advertising.

After five years of study and tests the result was a small jar which will hold the product at a very low temperature by using a refrigerant registering 114 degrees below zero. Another problem was the following-through of the refrigeration plan and servicing. Each jar was made with a capacity for twenty-eight 5 cent and 10 cent pies. The jar is filled daily and additionally as is necessary. When the salesman calls he regularly looks into the jar which is loaned to the dealer. This check controls substitution.

In connection with the jar is a balsa wood box, which maintains the same low temperature. This box is refrigerated with dry ice and holds a reserve stock of sixteen or eighteen dozen pies. This refrigeration is good for approximately twenty-four hours.

Not only did this plan protect the product for use in the metropolis but made it possible to get distribution through a number of outlets which had previously been closed. Most confectionery and drug stores had the necessary refrigeration conveniences but with the use of the jar, cigar stands in office buildings, grocery stores and other outlets were able to handle the product and give it prominent display.

The jar, while designed primarily for the refrigeration of the product, was made an advertising asset. The jar resembled a small orange colored barrel supported on the backs of three little metal eskimo. Car cards were used showing this jar against a background of the midnight sun. A frosting of ice covered the jar, and the text "114 degrees below zero" was used.

SUBSCRIBE NOW

Rate to Be Increased September 12

Beginning with the next issue, the subscription rate will be increased from \$1.50 to \$2.00 per year. Single copies will be 15 cents.

Until September 12, new subscriptions and renewals will be accepted at the old rate of \$1.50 per year, or three years for \$3.00.

Those who have not enrolled, or renewed, are urged to take advantage of this offer at once.

WAYNE OIL BURNER AND REFRIGERATION BUSINESS PURCHASED

Berghoff Properties, Inc., Buy Wayne Home Equipment Co.

Berghoff Properties, Inc., have purchased the Wayne Home Equipment Co., a division of the Wayne Company, Ft. Wayne, Ind., manufacturers of home heating oil burners and electric refrigerators. The transaction was completed August 18.

The policies and name of the Wayne Home Equipment Co., will remain the same for the present. Officers of the new company are Gustave A. Berghoff, president; Ben F. Geyer, vice-president; John A. Berghoff, treasurer; and Leon J. Baker, secretary.

For the last few years the Berghoffs have been identified with the Berghoff Products Co. and the Rub-No-More Co. Before connection with these companies they were with one of the Ft. Wayne breweries.

Stock, machinery, and other physical equipment of the company will be moved to four buildings of the Berghoff plant at Glasgow and Dwenger avenues. The office and factory forces will be kept intact, and moved to the new location. A floor space of 100,000 square feet will be used. The transfer to the new site will require about 60 days it is expected. The manufacture of oil burners and refrigerators will continue as long as possible in the present plant so that a minimum of lost production will be necessary.

The property was sold by Shields & Co., eastern bankers, who retained the ownership of the home equipment division after the sale of the property of the Wayne Pump Co., to the Wayne Co.

\$500,000 MERGER OF APPLIANCE CONCERNS IN OKLAHOMA CITY

E. I. Jones, President, General Appliance Co., Tells of Remarkable Growth

E. I. Jones, president of the General Appliance Co., Oklahoma City, Okla., reports remarkable success attending Kelvinator sales in the southwest. He now leads one of the largest organizations of its kind in the country and gives a splendid picture of the rapid strides his business has taken in keeping up with the growth of electric refrigeration.

With his announcement of enlarged facilities for merchandising Kelvinator in Oklahoma and Arkansas, Mr. Jones has some interesting things to say regarding the problems as well as the profits attending the marketing of electric refrigeration.

Mr. Jones reports that the consolidation of his Kelvinator department with the Electric Appliance Co., distributors of Westinghouse products comes at the most successful period in the history of the business and he is sure it will benefit all of his dealers.

This consolidation will give them a home office organization of more than fifty members, a capitalization of a half-million dollars and all facilities for handling any volume of business that can be produced.

Mr. Jones says that he first became interested in electric refrigeration in 1924, and in casting about for a machine to sell decided upon Kelvinator. "Our experience during the past four years has confirmed the wisdom of this choice." . . . "The same features which made Kelvinator a success in 1924 being responsible for the fact that dozens of our original installations have required practically no attention and are still giving perfect service."

Starting out with a dealership for one county Mr. Jones goes on to say—"we did not try to expand business too rapidly, and thank goodness for that, as back in those days of pioneering an order for one machine commanded as much respect as a carload order does today." However, as the idea of electric refrigeration developed and public acceptance seemed to be assured they gradually enlarged their organization and distributing territory until it now covers all of the states of Oklahoma and Western Arkansas. At the present time their dealer organization, which consists of some two hundred central station and

(Continued on page 2, Column 2)

FRIGIDAIRE DEALERS HOLD FIRST SHOWING FOR 19 NEW MODELS

Two New Compressors—No Louvers in Cabinet Base

ON Aug. 22, General Motors Corp., announced a new Frigidaire, manufactured in three lines, comprising a total of nineteen models with a wider range of prices. Unusual quietness in operation and a total absence of the mechanical in appearance are claimed as outstanding features of the new products.

The new models have been in production since Aug. 1. Within the past two weeks they have been exhibited to Frigidaire dealers and salesmen at more than seventy district meetings throughout the United States.

Louvers have been eliminated from the front of the cabinet. Heat is expelled through an opening in the rear by means of a forced draft which plays upon a new type condenser, similar to an automobile radiator in appearance. The lower front of the cabinet has been transformed into a broad unbroken panel, which completes the symmetrical lines of the cabinet as a whole.

Two improved compressors are introduced. The larger is one-fourth horse power and the smaller has a rating of one-sixth horse power. They supplant the "S" and "G" compressors, both one-fourth horse power, with which preceding models were equipped.

New Models First Presented in the De Luxe Line

The de luxe line of cabinets, first of the three in which the new Frigidaire is presented is porcelain enameled, inside and out. It is finished in white and glacier gray with chrome plated hardware of satin surfaced design and is composed of cabinets ranging in capacity from seven to eighteen cubic feet.

Cabinets in the second line range from seven to twelve cubic feet food storage capacity. These models have the same general specifications as cabinets in the first line with the exception of the exterior, which is finished in white duco. They are also furnished in a number of pastel shades on special order. The second line offers the same class of refrigeration and lasting qualities of the de luxe line at a considerable saving in the original investment.

Models in both the first and second line are equipped with the new "A" one-fourth horse power compressor.

Two cabinets of five cubic feet capacity head the third line. With these two cabinets Frigidaire Corp. has adopted the practice of shipping the compressor and cooling unit completely assembled and connected, ready to be installed. To install, the mechanic merely unfastens them from the shipping crate, drops the cooling unit into the top of the cabinet and shoves the compressor into its compartment in the base. The entire operation requires no more than two minutes.

The remainder of the third line is made up of a series of eight cabinets designed for installation in apartment houses. Exteriors are finished in duco. The interiors are finished in either porcelain or enamel.

Motor Mounted on Rubber

An improved rubber insulated motor mounting enables the weight of the motor to pull against the belt, keeping it tight at all times and preventing belt and motor noises. Compressor piston valves have been increased in size. The motor and many other moving parts are mounted on rubber. Closer limits have been provided for all moving parts.

In the new Frigidaire the compressor may be placed either in the base of the cabinet or set up outside it with a remote installation. Most apartment house boxes are built for remote installations.

Announcement is also made of additions to the line of Frigidaire water coolers. A new cooler similar to that now used for cooling bottled water, which is connected direct to the water main, is in production. Another office type cooler has a small refrigerating compartment where lunch and bottled beverages may be stored.

Frigidaire Corp. did the best six months' business in its history during the first half of this year and indications for the second half are very encouraging. E. G. Biechler, president and general manager declared early this month upon his return to the United States following a short European visit.

"Our European business to date is double that of last year," he said. "Our warehouses there are practically depleted. In addition, we are thousands of orders behind in our domestic business. Our plants have been in steady operation since the first of January, and plans call for increased production in last half of year."

DETROIT ENGINEERS PLAN 2-DAY FROLIC AT WALDENWOODS

Baseball, Fishing and Horseshoes
to Supplant Cares of Business

FINAL arrangements have been made for the outing and first Fall meeting of the Detroit Section of the American Society of Refrigerating Engineers to be held at Waldenwoods Saturday afternoon and Sunday, September 8-9. Approximately 100 members and guests are expected to drive out from Detroit to enjoy the woodland beauty and unique attractions which have made Waldenwoods famous as a meeting place for business men in several industries. C. H. Tanger, chairman of the Program Committee, announces that baseball, horseshoe pitching and fishing will be the major sports on the program. Provision has been made for the "night shift" (including those who prefer to sleep under a tree during the day). In that the "Black Cat" will be kept open all night to provide food for these and the overtime contingent.

The charge for the entire event will be only \$3.50 per member. It is estimated that the actual costs will be approximately \$5.00 per person, but the deficiency will be made up from a fund remaining in the treasury of the Detroit section. Members will be privileged to bring any number of guests, but the charge of \$5.00 each will be made for non-members.

Members of the Detroit Section and other members of the national organization who may be in the city at the time, are urged to send reservations to D. G. Ellis, secretary Detroit Section, at the Engineering Society's building, 478 Alexandrine St., Detroit, (phone Glendale 9585).

The route to Waldenwoods by automobile is straight out Grand River Avenue to Brighton. After passing through the village of Brighton the route turns north on M-65 (U. S.-23) for a distance of 10 miles. Signs will be provided to avoid any difficulty on the part of those who have not made the trip previously.

GEORGIA POWER FALL DRIVE BEGINS SEPT. 4

The Georgia Power Co., Atlanta, Ga., announces that the annual fall sale of electric refrigerators begins on September 4. General Electric domestic units will be featured, together with Kelvinator commercial equipment. The same terms offered during the record breaking campaign of May-June will be in force during the fall sale.

The advertising for this campaign will be unusual in that, for the first time, the success of a previous campaign will be brought out as an argument for buying now. The advertisements will attempt to show readers that if 1,833 customers purchased refrigerators during May and June, certainly those who have not yet bought an electric refrigerator should be convinced of the merits of this most modern appliance.

Berg Mfg. Co. Gets Order for 1000 Water Coolers

The Berg Manufacturing Co., Gardner, Mass., manufacturers of the Iceberg electric refrigerators, has received an order for 1,000 electric water coolers from the Electric Water Cooler Co. of Chicago, according to an announcement made by J. A. Pearson, managing director of the Berg company. The units in the present order are to be delivered before the close of this year.

WAGNER MOTORS FOR ELECTRIC REFRIGERATION

Wagner Small Motors meet the refrigeration standard—mechanically quiet—built to close tolerances. Available in ratings from 1/4-hp. to 1 1/2-hp.

TEN PROMINENT USERS

Frigidaire Corp. U. S. Air Compressor Co.
Kelvinator Corp. Duro Pump Co.
Universal Cooler Preferred Oil Burners, Inc.
Iron Mountain Co. National Refrigeration Corp.
Merchant & Evans American Blower Co.



WAGNER ELECTRIC CORPORATION
6400 Plymouth Avenue St. Louis U. S. A.

NOVOID CORKBOARD

For all commercial jobs you will find NOVOID Corkboard Insulation the most satisfactory insulating material for the purpose. It is convenient to use. It comes in 12"x24" and 24"x36" sheets, in 1", 1 1/2", 2", 3", and 4" thicknesses. Shipped in strong fibre containers, each containing 72 board feet. Samples on request.

Write for Catalog E-2
CORK IMPORT CORP.
345-349 W. 40th St., New York
Branches in Principal Cities



E. I. Jones

\$500,000 MERGER JOINS OKLAHOMA CITY CONCERNS

(Concluded from page 1, column 4)

other dealer outlets, is the best in this territory.

In building up their dealer organization the General Appliance Co. did not "high pressure" the dealer in over-stocking or spending too much money for promotional work, but rather suggested that he expand his business slowly, and in keeping with the development of the industry. The wisdom of this policy is evidenced in the fact that they have had a very small dealer turn-over; most of their dealers have enjoyed a steadily increasing business.

"Although we entered the commercial field rather cautiously," continues Mr. Jones, our commercial business represents a large volume." They recently closed a contract through the Watt Plumbing, Heating & Supply Co., their Tulsa dealers, with the Southwestern Stores, Incorporated, for all their Oklahoma stores—some three hundred in number. This order when completed will approximate \$200,000.00 and is probably the largest order ever placed in this territory for electric refrigeration. General Appliance Co.'s sales for the first half of 1928 exceeded by more than \$30,000.00 their entire business for 1927, and profits for the period proved correspondingly satisfactory.

Summing up, Mr. Jones makes it very plain that he believes the outlook for the future is exceptionally good, and that the distributor or dealer for any good standard machine should make money if his business is properly managed.

TOLEDO MAN SELLS MUTES, SAYS THEY GAVE NO ARGUMENTS

During the last day of the recent food preservation show by the Toledo Edison Co., Toledo, Ohio, Hugh Jacobs, Frigidaire salesman, made a unique sale to two mutes, a man and his wife.

After these people entered the display room, Mr. Jacobs approached them and started off with his usual conversation. He noticed after asking them a few questions that they did not answer. Then they started making signs and pulling out a pad wrote on it that they had seen the advertisement in the newspaper and came in as a matter of curiosity. Mr. Jacobs conducted them through the display, writing his entire conversation on their pad.

After showing them the last unit in the display the work of selling commenced. Every sales argument had to be written and every point had to be explained on their pad. It took one hour and a half to do this, but at the end Mr. Jacobs secured their signed order. He stated that they were easy to sell because they gave no argument.

Popularity of the "Cold Kiss" Swells Ice Cream Sales in Germany

Ice cream has become as popular in Germany as it is in the United States, it is reported. The unwonted heat of this summer has helped the ice cream industry put over its campaign with the use of a clever slogan. Ice cream was advertised as "cold kisses." American ice cream parlors sprang up like mushrooms and "American" ice cream carts now dot the streets of German cities. Sales increased 40 to 50 times manufacturers declared.

Evansville Planing Mill Co. Will Distribute Kelvinator

The Evansville Planing Mill Co., Evansville, Ind., manufacturers and distributors of building materials, has taken over distribution of Kelvinator electric refrigerators for southern Indiana and Illinois, and western Kentucky. A section of the Model Home owned by this company will be devoted to practical demonstrations of Kelvinator, William Johann, manager, stated.

Recent Installations

A general Electric refrigerator has been installed in the new Elk's club at Billings, Mont., by the F. B. Connelly Co., distributors for the General Electric Co. at Billings.

TWO DEATHS RESULT FROM POISONED FOOD KEPT IN UN-ICED REFRIGERATOR

Meat kept in a refrigerator without ice was the cause of the death of two members and the serious illness of others of a Jersey City, N. J., family, according to the *Jersey Journal*.

City Food Chemist and Inspector, Denis Sullivan, found that the meat remaining without ice had become suitable media for the pathogenic organisms found in cultures made from the stomachs of the two dead children.

The tragedy grew from friends of the unfortunate family finding they could not use the pork roast they had prepared for Sunday dinner and sending it to their friends. Ice had become scant in the ice box and by evening the ice was gone. The roast remained in the chest Monday without ice and was used Monday evening. Again on Tuesday some of the meat was eaten, still no ice having been placed in the box.

It was thought the poisoning was caused from canned peaches or canned milk until the cultures taken from the stomachs of the dead children proved that the meat had caused the death.

The two dead were a small boy and girl. The mother, very ill in the hospital, was kept in ignorance of the death of the children. The mother and three other children were thought to be out of danger.

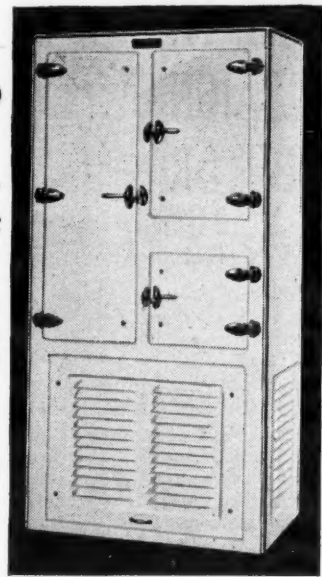
94 Units Sold in Two Months by Empire District Electric Co.

The electric refrigeration department of the Empire District Electric Co., Joplin, Mo., sold 94 Frigidaire during the months of June and July. J. D. Cochran was the high sales man for July and H. S. Davis is leading in sales for August.

BOHN'S Latest Achievement — The New BOHN "Super Quality" Refrigerator

Beautiful,
Distinctive

Can be had in 5,
6, 7, 9 and 12 cubic
foot net food
storage capacity.



White Porcelain
Enamel inside and
outside. The
machine compart-
ment is ideal for
storage space
where remote in-
stallation is made.

[Featuring the Insulated Baffle Wall]

The lowest prices in our 31 years of
manufacturing "Super Quality" Refrigerators

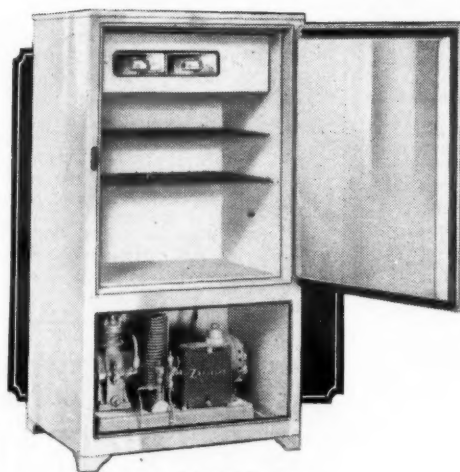
BOHN REFRIGERATOR COMPANY
SAINT PAUL, MINNESOTA

These models are on display at our own stores in

NEW YORK CHICAGO BOSTON
5 East 46th Street 227 No. Michigan Blvd. 707-709 Boylston Street

A complete line!

Zerozone variety in sizes, types
and price range covers the market



Model LE-49

A specially designed Zerozone refrigerating unit makes possible this compact, well-proportioned cabinet appealing to the average family.

Zerozone offers a
complete line of
Domestic self-con-
tained Units, Re-
mote Installations,
Multiples for Apart-
ments, and Com-
mercial Equipment.

Sales are largely the result of fitting the product to the prospect's specific needs. Especially in electrical refrigeration. Space, type of equipment, price—all are factors.

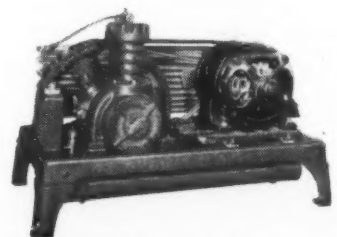
The line that answers all the varied requirements of prospects, is the line with maximum possibilities.

Zerozone definitely offers a complete line of the finest electrical refrigerators that quality materials and precision manufacturing could produce.

For every domestic and multiple requirement, there's a Zerozone unit exactly suited, at widely varied prices in line with competition. Consider, for example, the small-kitchen model LE-49, priced at \$190 retail f. o. b. factory—yet without a single sacrifice of the features usually found only in larger models!

Thousands of Zerozones installed throughout the country are establishing service records without a parallel. Sales are growing by leaps and bounds.

Some attractive territories are open to distributors. Write now for details.



The multiple installation, the Zerozone Model "I" Compressor is establishing a marvelous record of efficiency. Precision manufacturing of the finest kind is the answer! All Zerozone compressors give smooth, dependable performance which means lasting satisfaction, both to the dealer and the user.

Iron Mountain Company
939 E. 95th St., Chicago

Zerozone

Lifetime Refrigeration

Insulated Houses to Aid the Work of the Byrd Antarctic Expedition



In preparation for a two years' stay in a region where temperatures are 80 degrees below zero and where winds attain terrific velocities, Commander Richard E. Byrd has arranged for the construction of insulated houses which will protect his men and enable them to live in comparative comfort while they are conducting experiments and making scientific research in this previously unknown region.

The accompanying photograph shows Commander Byrd standing in front of one of these houses examining a section of the

wall construction used in these buildings. The section he is examining is 5½ inches thick and contains 4 inches of Dry-Zero insulation, a material which is one-seventh the weight of cork.

Members of the expedition will actually be living in what are, in effect, large refrigerators functioning to keep cold out and heat in. Former expeditions in the Antarctic have experienced trouble from ice forming on the inside of the houses due to condensation. It is expected that these insulated homes will eliminate this condition.

GREAT LAKES N. E. L. A. WILL MEET AT FRENCH LICK SEPT. 27-28-29

The eighth annual convention of the Great Lakes Division of the National Electric Light Association will be held at the French Lick Springs Hotel, French Lick, Indiana, September 27-28-29.

Among those who have accepted invitations to be on the program are:

P. S. Arkwright, president, National Electric Light Association, Atlanta, Ga.

J. F. Owens, chairman, Public Relations National Section, Oklahoma City, Okla.

Marshall E. Sampson, chairman, Commercial National Section, Chicago, Ill.

J. F. Gallagher, Department of Agricultural Engineering, Michigan State College.

Arthur Perrow, chief accountant, Illinois Bell Telephone Co., Chicago.

Paul S. Clapp, executive manager, N. E. L. A. Dempster MacMurphy, manager, Public Information Department, Middle West Utilities Co., Chicago.

Mrs. Anna Steese Richardson, director of Good Citizenship Bureau, Woman's Home Companion.

Eloise Davidson, National Electric Light Association.

J. E. Johnson, president, Great Lakes Division, Chicago.

E. L. Hinchcliff, Middle West Utilities Co., Chicago.

Entertainment at the convention will include the president's reception and ball on Thursday, the annual banquet, Friday evening, and a golf tournament for both ladies and men. Complete details as to the business and entertainment program will be available about Sept. 1.

250 FRIGIDAIRE MEN ATTEND TWO-DAY MEET AT SAN ANTONIO

Approximately 250 Frigidaire salesmen and dealers met in San Antonio, Texas, recently to attend a two-day sales and service convention at the Alamo Country Club. In addition to the discussion of new sales plans which will be used by the Frigidaire Corp. during the coming season, the new 1929 models were displayed for the first time.

Dealers attending the meeting expressed themselves as highly pleased with the new improvements brought out this year and expect a banner year in sales and profits.

The meeting was in charge of E. J. Hermann, San Antonio branch manager,

P. H. Jackson Joins Servel as Representative in Northeast

H. W. Foulds, vice-president and general sales manager Servel Sales, Inc., Evansville, Ind., announces the appointment of P. H. Jacobson as special representative for the northeast states. Mr. Jacobson recently resigned as district sales manager for May Oil Burner Corp., in charge of sales in New York state, the northeastern states and Canada, with headquarters in Schenectady.

His experience in the automatic refrigeration field includes several years as district sales manager in Baltimore and Pittsburgh for Kelvinator. Mr. Jacobson will be representative for both Electrolux and Servel automatic refrigerators with temporary headquarters in Baltimore.

Spokane is Scene of Frigidaire Meeting and Banquet

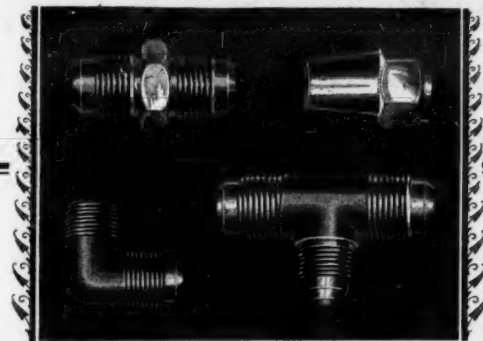
Frigidaire dealers operating under the P. F. Pickette Co., Spokane, Wash., met at the district office at First and Posts Sts. recently where they were addressed by Mr. Pickette, head of the local distributing agency.

The business session was closed with a banquet and entertainment program at the Dessert hotel.

Rex Cole Holds Another Breakfast Meeting in New York

Two hundred retail men and dealers of Rex Cole, Inc., General Electric refrigerator distributor in New York City, attended an 8 o'clock breakfast meeting at the Hotel Commodore recently.

The meeting, which was divided into a morning and afternoon session, was addressed by W. J. Daily, manager of sales promotion division in the Cleveland office.



PIPE and TUBE FITTINGS

Made From Brass Forgings

For many years we have specialized in the manufacture of brass fittings, in small sizes, for connecting brass and copper tubing.

We are now producing similar parts made from BRASS FORGINGS—including a full line of forged nuts. These fittings are especially designed to meet the requirements of Iceless Refrigerator Manufacturers for fittings of a superior type. These fittings will not leak gas, air or liquids under mechanical pressure. They have the compact grain structure, high tensile strength and smooth, flawless surfaces found only in forgings. Our forged fittings are accurately machined, carefully inspected and individually wrapped and labeled.

Send a sample or blue-print for quotations on parts of a special nature. Catalogue No. R-30, showing our complete line of standard fittings, will be mailed on request.

COMMONWEALTH BRASS CORPORATION
DETROIT 5781-5835 COMMONWEALTH AVE. MICH.



Over 250,000 SATISFIED Users

"To the dealer in electrical refrigeration of any type, the prestige of McCray as a builder of fine cabinets has real profit value."

PIONEER in modern sanitary refrigerator construction, for 38 years McCray has held to an unyielding ideal of quality which is reflected in the remarkable service records of McCray installations.

McCray users have always been our best advertisements. This army of over 250,000 satisfied customers is striking evidence of that leadership which is further revealed in the fact that McCray is the world's largest manufacturer of refrigerators for all purposes.

In single stock units and complete built-to-order installations for the largest institution, McCray quality is held to this single high standard.

All McCray models may be used with electric or mechanical refrigeration of any type, or ice. Pure corkboard, sealed with hydrolene by a distinctive process, provides perfectly air-tight insulation.

Send for latest catalogs and further information about refrigerators to meet your specific need. No obligation, of course.

MCCRAY REFRIGERATOR SALES CORPORATION

Dept. 66. Kendallville, Indiana

SALESROOMS IN ALL PRINCIPAL CITIES (See Telephone Directory)

MCCRAY REFRIGERATORS

E. T. L. Service for Domestic and Commercial Electric Refrigeration

Testing and experimental laboratory service for manufacturer, distributor, central station

Test data exclusive property of client

ELECTRICAL TESTING LABORATORIES

80th Street and East End Avenue, NEW YORK CITY, N. Y.

Knoxville Man Imprints Book Matches With Customer's Name

Each customer buying a General Electric refrigerator from the Knoxville Power & Light Co., distributors at Knoxville, Tenn., receives a quantity of book matches imprinted on the outside with "I Bot a G. E." and followed below by the name of the purchaser.

W. B. Harris, merchandising sales manager, believes that this is good advertising and an excellent way of distributing matches.

Domestic Science Teachers Find Servel Plant a Cool Spot



Deciding that the best place to spend a warm summer day was in a refrigeration plant, the group of students pictured above visited the Servel factory at Evansville, Ind., where they were shown just how Electrolux and Servel automatic refrigerators are made. The students, all of whom are domestic science teachers attending summer classes at Evansville College, visited Servel with Professor L. T. Buck.

NATIONAL COMPRESSOR BEING PUT ON MARKET BY LOS ANGELES CONCERN

To Be Offered in Two Sizes Either Air or Water Cooled

Gilbert Woodill, president of the National Home Equipment Corp., 1901 W. 7th St., Los Angeles, Calif., reports that this company will begin to make deliveries about Sept. 1, on the National compressor.

This compressor will be built in two sizes, a 2x2 inches driven by a 1/2 horse power motor and a 2x3 inches driven by a 3/4 horse power motor. By using two different main pulley sizes and two different motor pulley sizes for each compressor a combination of four speeds is obtainable from each.

Compressors in both sizes are being built in either air or water cooled styles. The crank case, crank shaft bearing plates, cylinder block, discharge valve plate and head plate are all cast separately. The cylinder block casting is made with fins for heat radiation as is the aluminum alloy cast head plate.

The discharge valves are assembled on the discharge valve plate and are of the conventional flapper disc type as are also the inlet valves in the head of the pistons. The pistons are of cast iron, extra long with three step-cut rings. The crank shaft, 1/2 inch in diameter, is run on ball bearings, one of which has a double ball race, and is of the self aligning type. The connecting rods have particularly large bearing surfaces and are made of a bronze alloy, material generously impregnated with graphite.

On account of the weight and size of the camthrows on the crank shaft, the flywheel is double grooved and is made of aluminum alloy.

It is claimed that due to the construction and materials used in this compressor, it will start with a low torque and with very little head pressure.

The machine which is being manufactured in Los Angeles by the National Electric Equipment Corp., is said to be the result of seven years experience in electric refrigeration business and many years in the electro-mechanical business.

Sells 17 Units a Month for 5 Months—and Most of Them Large Ones

Selling 17 electric refrigerators a month for five months consistently, was the record of A. R. Knowlton, salesman for the Ochiltree Electric Co., Pittsburgh, distributors of General Electric Refrigerators. Seventy-five per cent of Mr. Knowlton's sales were of the large models, proving that the public is becoming more conscious of adequate refrigeration.

KULAIR PRODUCTS OFFER BASIS FOR DEALERS TO ASSEMBLE UNITS LOCALLY

With the increasing demand for special applications of electric refrigeration and for sizes of compressors and other parts of equipment not made by the manufacturer regularly represented, experienced dealers are becoming interested in the possibilities of making local assemblies and manufacturers are giving attention to the "parts business" being developed.

Various sizes of compressors, condensing units or high sides, complete refrigerating units for domestic application in



E. S. Lape, Sales Manager, Refrigeration Division, Franklin Air Compressor Corp.

remote or self contained types, freezing units or low sides, and one piece pressed aluminum standard ice freezing trays are among the products of Franklin Air Compressor Corp., Morristown, Pa. They are manufacturers of essential parts of electric refrigeration appliances for the trade, as well as complete units.

When so requested, Kulair products are sold without their nameplates or other insignia relating to the manufacturer, thus avoiding the necessity of the local assembler advertising the name of somebody else's product with his own name.

Kulair products are applicable to flooded or to dry gas expansion systems, direct or holdover freezing units, float valves or balanced diaphragm expansion gas control, thermostat or pressurestat electrical control, multiple or single unit hookup, remote or self contained, and for use with sulphur-dioxide, methyl chloride or butane refrigerants.

The sizes in which Kulair compressors and condensing units are built vary from the smallest household outfit to a one-ton capacity commercial application.

These products are sold principally to manufacturers or to merchandisers of electric refrigeration who are adequately equipped with technical personnel capable of applying household or small commercial installations in user location.

Refrigerated Ship Aids Introduction of Reindeer Meat in U. S.

The motorship "Sierra" operating between Nome and Seattle, on which refrigerating and cold storage equipment was installed last year, is now carrying full cargoes of reindeer meat for distribution throughout the United States. The ship carries 1,500 tons of meat in cold storage, and several thousands of cases of canned reindeer products. Efforts to introduce reindeer meat into the United States were unsuccessful before the advent of the refrigerated ship.

Evansville Frigidaire Distributor Holds Meeting of Dealers

Forty Frigidaire dealers of southern Indiana and Illinois, and western Kentucky met at the salesroom of the A. F. Wood Co., 321 Main St., Evansville, Ind., marking the appearance of the new and improved Frigidaire units on Aug. 22.

Demonstration talks were made by D. J. Maloney, zone sales manager; J. B. Reeves, regional sales manager; and E. F. Moore. The visitors were guests of A. F. Wood, general manager, at lunch served at the Hotel McCurdy.

Frigidaire Dealers See New Models at Galveston Meeting

About fifty Frigidaire dealers from forty-five South Texas counties attended an all-day meeting in Galveston on August 18 when the new Frigidaire models were displayed by factory representatives. Short talks were made by Ralph L. Lee, sales educational director; F. C. Marshall, zone manager; Jules Kuhn, factory representative; and S. W. Short, local dealer in Galveston. Cox & Blackburn of Houston are distributors for the district.

Kulair Compressors

ALL SIZES
FOR
SULPHUR DIOXIDE
METHYL CHLORIDE
BUTANE

Kulair Condensing Units

Slow Medium and High Speed
13680 to 310896 B. T. U. Daily Capacity
For Flooded or Dry Systems
Pressurestat or Thermostat Control
Multiple or Single Unit Hookup
Remote or Self Contained Installations
Commercial and Household Sizes

Write for Prices and Data

Franklin Compressor Corp.

Refrigeration Division

NORRISTOWN, PA.

CABINETS BY
Seeger
SAINT PAUL

for Commercial Purposes

Seeger presents the Greatest Line of Commercial Cabinets ever built for use by Hotels, Restaurants, Clubs, Shops, Hospitals, Grocers and Florists.

These Cabinets are shown in either All White Porcelain Exterior and Interior, or in Flush Panel Oak Exterior with White Porcelain Interior. The food chambers are arranged to give complete and speedy access for the various services for which they are intended. The Cabinets are of extra heavy and scientific construction, correctly insulated with wrapped pure Cork Board to adequately maintain the proper temperature, with the lowest cost for Ice or Power.

All of these Cabinets are built for all types of Refrigeration, Ice, Electrical, Gas or Mechanical.

The All Porcelain Cabinets are of vitreous porcelain on Armco iron, both the exterior and linings of food compartments. The Flush Panel Oak Cabinets have the food compartments lined in the same way.

Pure Cork Board Wrapped is the best insulation known to refrigeration engineering—it is therefor used in these Cabinets. It depends upon its thickness to adequately maintain the proper temperature, and in order to keep that degree of coldness with minimum expenditure for either Ice or Power, the larger Cabinets are insulated with three-inch Cork Board Wrapped—nothing better is known.

The shelves are of super-heavy wire—retinned after fabrication.

These Cabinets by Seeger may be had in colored porcelain exterior at extra cost.

The Seeger "Made to Order" Department will be glad to build to specification any size or design of Cabinet required.

SEEGER REFRIGERATOR COMPANY

SAINT PAUL, MINNESOTA

NEW YORK
389 Madison Ave.

BOSTON
26-28 Providence St.

ATLANTA
392-4-6 Spring St. N. W.

LOS ANGELES
1340 E. Sixth St.

CHICAGO
228 No. LaSalle St.

SEATTLE
1119 Fourth Ave.

EXTRA DRY ESOTOO

THE PUREST
SULPHUR DIOXIDE

Analysis Guaranteed

We have an agent, with our product in stock, near you
Wire us where we can serve you

VIRGINIA SMELTING CO., WEST NORFOLK, VA.

F. A. EUSTIS, Secretary

131 STATE ST., BOSTON

2 RECTOR ST., NEW YORK

New York Power & Light Co. Invites Patrons to Try Sparklet Aerated Ice Cream

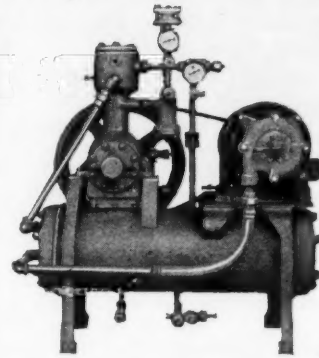


THIS window display featuring Sparklet Syphons was used recently in connection with the sale of General Electric refrigerators by the New York Power and Light Company of 120 State Street, Albany, N. Y. J. H. Van Aerman, in a letter to appliance supervisors, points out the advantage of the Sparklet Syphon in connection with the electric refrigerator because it makes possible the making of real ice cream. Mr. Van Aerman says that local dairies are willing to enclose circulars of the Sparklet Syphon in its monthly bills because, if these customers

once use a Sparklet Syphon, their orders for milk will be supplemented by many calls for "one pint of whipping cream." He says, "All kinds of tricks to make people think refrigeration can be done with the syphon." Ice cream may be made in a floor model refrigerator, Mr. Van Aerman suggests, and wooden spoons may be purchased and those who are in the store, shopping or paying bills, can be invited to taste "ice cream made in an electric refrigerator" and the conversation can easily be directed into the channel of refrigeration itself.

In connection with increasing sales of electric refrigerators and use of Sparklets Syphon, New York Power and Light Company carried a page advertisement in fifteen Mohawk Valley newspapers. The advertisement displayed the syphon being used in the making of ice cream. Other suggestions for its use together with recipes were given. The advertisement announced that each afternoon a demonstration of ice cream making with the aid of a Sparklet Syphon and a General Electric Refrigerator would be conducted.

SULPHUR DIOXIDE DEALERS ATTENTION



Can You Use More Volume of Business?

Do You Want To Make More Profits?

Would You Like a Larger Field To Sell In?

Then carry ammonia compressors and units in connection with your sulphur dioxide machines

You will be several steps ahead of your competitors

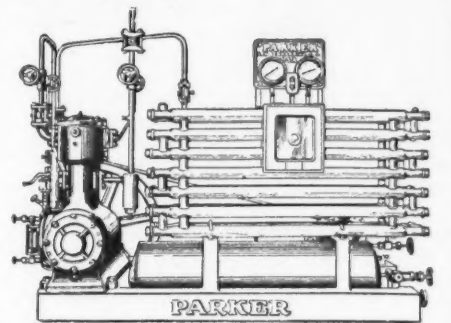
We manufacture and stock machines from 1/2 to 30 tons capacity

Parker Ice Machine Company

FACTORY and EXECUTIVE OFFICES

San Bernardino, California

Established in 1899



When You Have Won, Stop; It's Time To Get Out The Order Blank

From the Sales and Service Bulletin of the F. B. Connelly Co., Billings, Mont.

TO be able to talk fluently and to the point is a great asset in selling. It is the steering wheel by which you guide the mind of the buyer to conviction and to the action you want—the lever that pries orders loose from the hardest prospect. At the same time there are moments when silence is golden—and the salesman must know when to pull the throttle wide open and when to clamp on the brakes.

The purpose of your talk with a buyer is to build a picture in his mind. You want him to see your proposition as in a spotlight, to understand what it will do for him. The clearer you make your description and the more forcefully you put your arguments, the better. But when the picture is complete, bring in your close. Only if the decision falls against you or if the buyer seeks delay, is it wise to bring up further selling points.

Saying too much is just as bad as saying too little and even saying the right thing at the wrong time kills many a sale. Because the buyer carries the responsibility for the purchase, he must think for himself. You must give him time to assimilate what you say, and to figure out how he will use what you offer after he buys. If you interrupt him by bringing up new points before he is ready, or try to force his hand by riding through roughshod over his views, you arouse opposition and block the road rather than smooth the way to a favorable decision.

Particularly at the closing moment, when the buyer is weighing the pros and cons of action, too much talk is dangerous. Simply hold the picture you have drawn. Of course, if the buyer wants more information, give it. If he is puzzled or confused, review the points you have already made. But any new angle of discussion will completely throw his mind out of gear and compel you to work him up to the closing point again.

Many salesmen make the mistake of thinking that they must do all the talking. Good salesmanship, on the contrary, requires that you keep in step with the mind of the buyer—that you talk with him, not at him. The slow, methodical thinker cannot be hurried. For the fast thinker, you must speed up—bring out

your points quickly and clearly. By tactfully sounding out your man as you go along, getting him to express his reactions, you know whether he is following you and whether you are hitting home or shooting wide of your mark.

Frequently talking too much or at the wrong time is due to nervousness or to over-anxiety to close the sale. A man may think he can hide his own feelings or force the buyer by a flood of argument, but most buyers are shock-proof against strong-arm stuff and can sense self interest on your part even before you are conscious of it yourself. Too much fuel will choke a fire and too much or too rapid argument will clog the prospect's thinking machinery.

Some salesmen, because they can talk easily and well, are prone to swing into discussions that are unessential and better taken for granted. Some points of your proposition the prospect will already understand. Others, he will assume to be satisfactory. What you must give him are the vital points on which he is not clear. Unless you draw out your prospect's circumstances at the beginning of the interview or make him talk as you go along, to learn how your proposition fits into his needs, you can never talk to advantage—you cannot know when you've said enough.

When you have made a strong point in your favor don't fear a silence. It emphasizes your point. Give it time to sink in.

When you have secured conviction, don't keep on talking till you open a new avenue of thought that may prompt the prospect to reconsider and maybe invite you to come back next week.

When you have won, stop. It's time to get out the order blank.

"Monel Metal trim" featured by McCray to 3,000,000 Readers



McCray Refrigerator advertisement featuring "mirror-like Monel Metal trim", reproduced from the February 18th issue of The Saturday Evening Post.

QUALITY is always worth talking about

McCray Refrigerators are recognized as a quality product by readers of national magazines. The McCray Refrigerator Sales Corp. now specifically mentions Monel Metal as an important feature of its new display case, and thereby adds new significance to the phrase "quality trim denotes quality throughout."

Leading manufacturers recommend and use Monel Metal for trim, screws, etc., because:—

1. It is permanently bright and attractive.
2. It is easy to keep clean because of its rust-immunity and corrosion-resistance.
3. Its steel-like strength makes it hard to dent or scratch.

SEND FOR "LIST B" OF MONEL METAL AND NICKEL LITERATURE

Monel Metal is a technically controlled Nickel-Copper alloy of high nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY (INC.) 67 WALL STREET, NEW YORK, N. Y.

SULPHUR DIOXIDE

ANHYDROUS
ANALYZED
SULPHUR
DIOXIDE

Universally used in the production and servicing of refrigerating machines. Prepared for direct charging, with absolute protection afforded by complete laboratory analysis of each cylinder, large or small. Exceptional dryness maintained as an additional safety factor. Ten sizes of cylinders from 2 lb. to 150 lb. capacity.

SO₂

ANSUL CHEMICAL COMPANY
MARINETTE, WIS.

Canadian Distributor
GRASSELLI CHEMICAL CO. Ltd.
Toronto—Montreal

Western Subsidiary
ANSUL CHEMICAL CO. of Calif.
Modesto, Calif.

Advantages of the Multiple System for Apartment Houses

By Louis Barth

MECHANICAL refrigeration, the youngest child of American industry, is giving promise of growth as phenomenal as the automotive industry. Its constant widening market and rapid adoption not only for family use but also in industry and in various types of retail and wholesale business will force an ever growing demand.

The saturation point, if such a term can be used, cannot be defined.

The household market promises a potential field of at least ten million units, the industrial field about two million units and the retail and wholesale field another two and one-half million, giving a total of at least fourteen and one-half million units, amounting to more than \$2,000,000,000, wholesale estimates. This is for the United States alone. We can safely add to that figure about thirty-three and one-third per cent to arrive at an approximate immediate potential world demand.

So far to date, according to industrial reports, less than two million units are in use, showing that the potential market has been barely scratched. The present manufacturing facilities are not yet large enough to even take care of a normal growth and widening of the market due to larger and wider adoption of the product, yet the major problem is not manufacturing. The product itself has reached the essential point in refinement to warrant its adoption without any further delay on the part of the potential user. It is safe to assume that a normal development of the market will call for at least three million units per year, which is less than the present manufacturing output.

In the scramble for business, however, the market seems to be very badly understood. Most of the manufacturers until recently have been catering, especially in the household market, to the so-called better class buyers, thereby automatically placing the product in the luxury class. This fallacy is now seen and there is a gradual trend to include in the market every possible home where there could be a desire for better living conditions regardless of the income of the family involved.

Because of this condition, the natural small percentage of potential buyers which make up this so-called better class, the scramble for sales in this field has played havoc with price quotations, and many a retail dealer and distributor being pressed by their principals for sales output have followed the line of least resistance and have rebated and discounted to a "fare you well," thereby making for a product which should be and must be sold in a logical sellers' market a buyers' market. The result of these activities instead of increasing sales has hindered considerably the expansion in volume, because a large number of prospective buyers are afraid to purchase, expecting to see still lower prices and possibly more improved products, thereby delaying the development of the industry as a whole. The fault can be squarely and fairly placed at the manufacturers who are allowing these policies to continue or even to originate. Of course, this story is not entirely new. It seems to be a natural illness, in a growing industry.

Apartment House Sales

Because it is reasonable to expect that in a very limited period of time mechanical refrigeration will be demanded in the average home and will become as common as modern plumbing, the best market for consumer sales in volume exists in the apartment house field. Competitive conditions in real estate renting will demand that the owner of such properties will have to equip existing buildings of this type, and of course new construction cannot be considered without electrical refrigeration equipment as one of the essential factors.

As stated in the introduction of this article, marketing conditions at the present time have made this type of business especially far from profitable for both the distributor and retail seller. With the relatively small margin the distributor and retail seller have to operate on, the largest share is lost to them because of cut-throat competition and dog-fights in this particular class of sales outlet. It is safe to assume that few, if any, distributors or retailers in catering to this type of business can show a net profit on these transactions. However, these conditions, of course, will straighten themselves out in time.

The Multiple System

In considering sales to the apartment house owner or builder the situation as a whole should be considered so as to arrive at the best type of equipment suitable to the individual case. A careful analysis should be made to determine first of all the type of apartment to be equipped, its rental value, the construction and size of the various apartments, and the type of tenant expected to use the building. Undoubtedly the most economical type of installation to use is the so-called multiple connection where a number of refrigerators are run by one or more compressors. However, where limitations such as exclusiveness of the building, variation in size of apartments in one building, necessitating different size and style cabinets, which in turn may make a decided difference in service factors, the height and floor plan of the building may make the individual

installation preferable to the multiple system. There are advantages to both types of installation and a careful comparison must and will show the buyer which system will be best adapted for his use.

In advising prospective purchasers as to the type of installation to use, the analysis will show that the interest lost on capital comprising the difference in first cost between a multiple and an individual installation, together with a lower maintenance charge and a corresponding lower depreciation can, in most cases, pay for the amount of power consumed by a multiple installation, allowing the purchaser to give his tenants a complete service without any larger total cost than his first cost on an individual installation.

A Comparison of Costs

With an individual installation the tenant will have a continuous power bill to pay, which may vary upwards from \$20.00 to \$30.00 per year. A typical analysis of this condition is given hereunder.

An individual unit system used in an apartment house containing sixteen apartments, having a rental value of \$720.00 per apartment per annum could be equipped with a standard make mechanical refrigeration system using individual units at a first cost of \$3,000.00, taking into consideration an average quantity discount such as now is hampering the industry. The interest on this investment amounts on the basis of 6 per cent per annum to \$180.00 per year; depreciation, which is mainly on the compressors, can be figured at 4 per cent per year and amounts to \$120.00; service on sixteen individual units after the free service period is over with, will average approximately two to three calls per unit per year, at a cost of \$2.00 per call, amounting to an annual charge of approximately \$64.00 per year; replacement of parts together with incidental labor will be approximately \$2.00 per refrigerator per year or \$32.00; taxes and insurance will amount to about \$30.00 per year. Adding these figures together we arrive at a total annual cost of \$426.00.

Assuming that the cost of the compressors for this individual installation will amount to \$1600.00, it shows that the part of the investment which is subject to the quickest depreciation, wear and tear, etc., amounts to approximately 53 per cent of the total investment. The advantages of the individual installation are that once the equipment is in and paid for no more power costs can accrue to the owner. And whether or not the users are careful or careless with the use of the equipment will not to any large extent cause annoyance.

Should, on the other hand, a multiple installation be used utilizing a corresponding type cabinet as in the foregoing individual installation, one compressor using from one to one and one-half horse power motor can do an efficient job. The total cost for this type of installation, allowing the same approximate discount as in the foregoing type of installation, will amount to about \$1800.00; 6 per cent interest on the total investment will amount to \$108.00 per year. The actual cost of the compressor used in this type of installation is approximately \$350.00, which is 21 per cent of the total installation price. The cost of servicing one compressor, allowing twice the amount of service calls on the larger machines than on the smaller ones, will amount to four calls per year and cannot exceed \$10.00 per annum. Average replacement of parts, when same becomes necessary, can be taken care of with a reserve of about \$6.00 per year, and electricity necessary to run an installation of this type, based on a power rate of 5c per kilowatt, operating time ten hours, averages not to exceed \$140.00 per year. Taxes and insurance on the investment will amount to \$20.00 per year. Depreciation, being mainly on the compressor, will be less than \$60.00 per annum. Adding these figures together we can readily see that the difference in gross operating expenses, interest on investment, depreciation and service will be ample to take care of the power cost on a multiple installation.

The advantage to the buyer is this—he eliminates practically all service in the kitchens of the apartment house tenants; eliminates practically all compressor noises, the space used by an individual unit in the individual cabinet to house the compressor can now be used for other purposes, such as added cabinet space, vegetable bin, etc. The first cost of a multiple connection being decidedly less to the purchaser than the individual system, the total cost in case he includes his power costs are about the same over a period of time, as the individual installation would be, yet he saves his tenants approximately \$20.00 to \$30.00 per year by eliminating a share of their power bill. This will be, especially in the lower priced apartments, quite a factor in keeping apartment houses tenanted.

In a great many cases, especially in

apartment houses already constructed, tenants are willing to pay the landlord some compensation for the use of the refrigeration equipment when they are not being asked to pay an added electricity bill. The income therefrom derived can be regarded as net profit. Should again the landlord, due to competition, be compelled to give this service entirely free, the actual cost to him compared in both systems is nothing, and he is better able to meet conditions then existing.

The figures and facts given in this comparison are from actual experience, and of course may vary due to local conditions. However, regardless of local conditions and prices, the ratio will be maintained.

OPPORTUNITIES FOR FOREIGN TRADE LISTED BY DEPT. OF COMMERCE

Firms and individuals may obtain further information on the announcements listed below by applying to any one of the districts or co-operative offices of the Bureau of Foreign and Domestic Commerce. A list of the offices and their addresses appeared on page ten of the June issue of *ELECTRIC REFRIGERATION NEWS*.

The asterisks (*) indicate that the inquirer would act as both purchaser and agent.

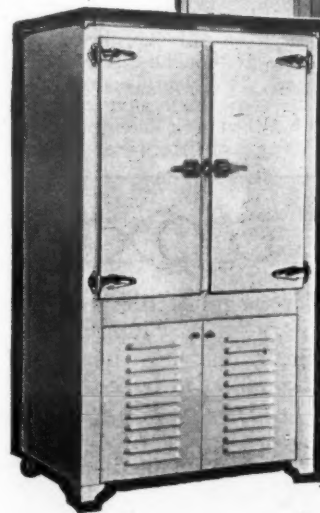
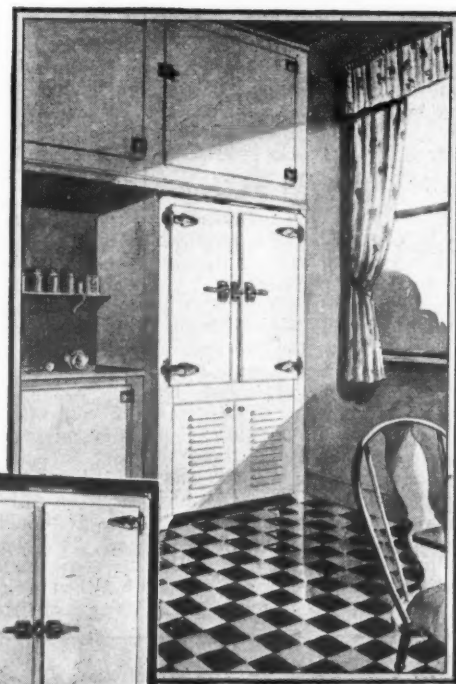
- *32988 Household electrical appliances (England)
- 32872 Oil burners (Australia)
- 32972 Household electrical appliances (Australia)
- 32883 Oil burners (Germany)
- 32885 Oil burners (Germany)
- 32888 Oil burners (Germany)
- 32935 Refrigerators, wooden (South Africa)
- *33091 Electrical equipment (England)
- 33135 Ice cream manufacturing machines, medium size (Java)
- 33114 Refrigerators, electric (Rumania)
- 33031 Refrigerators, electric (Austria)
- 33043 Household electrical appliances (China)
- 33077 Paints, quick drying enamels and pyroxylin lacquers (Germany)
- 33041 Household electrical appliances (Switzerland)



It's the CABINET that First claims their Attention

THERE'S a charm about Rex Cabinets, an air of luxury and utility that instantly appeals to every woman. The gleaming white porcelain or lacquer exteriors, enamel or porcelain interiors, the doors, the shelving, the spacing arrangement have all been designed and built with complete knowledge and consideration of modern-day kitchen requirements. The heavily nicked hinges and locks and the Monel metal trimmings are easily kept clean and polished. Several models of Rex Cabinets are available in charming color combinations. Then, too, the insulation of Rex Cabinets means better performance and economy for the entire Refrigerating Unit.

If you do not know the entire line of Rex Cabinets, the materials and construction... write for illustrated leaflets and prices



Rex Manufacturing Company

CONNERSVILLE, INDIANA

Announcing The Correct Insulation for REFRIGERATORS

Good judgment in selecting the correct insulating material for Refrigerators is most important to Refrigeration manufacturers.

Familiarize yourself with a few of the outstanding advantages of Insulite for this use which are listed below:

Strength

The great strength of Insulite assures strong and lasting construction and will permit reducing or entirely eliminating wood framing.

Accurately Cut to Size

Insulite is furnished "cut to size" in any thickness required for refrigerator installation. This feature eliminates labor costs in cutting and trimming.

Waterproof

Special Preservative treatment makes Insulite absolutely impervious to moisture. It will not rot, mould or disintegrate. Fifteen years' service in railway refrigerator cars has proven Insulite's qualifications to stand up and function during the entire life of any refrigerator.

Unequalled Durability

Insulite is the most highly efficient, rigid thermal insulator known. It has a conductivity rating of 7.1 B. T. U.'s per 24 hours. Its durability assures constant maintenance of this high rating of efficiency during its entire service life.

Samples of technical details will be sent upon request.

INSULITE
the Wood-Fiber Insulating Board

THE INSULITE COMPANY
Refrigeration Sales Department
737 Conway Bldg., Chicago, Ill.

HEADS KELVINATOR ADVERTISING AND SALES PROMOTION

J. A. Corcoran has been appointed director of advertising for Kelvinator Corp., Detroit, to succeed R. M. Douglass. He will also continue as director of sales promotion.

Mr. Corcoran joined Kelvinator in March, 1926, as head of the resale department. For twenty-one years he was with the General Electric Co., and for two and one-half years just previous to going with Kelvinator he operated a business of his own which gave him many contacts with contractor-dealers handling Kelvinator.

SERVEL LINE INCLUDES COMMERCIAL UNITS UP TO 1/2-TON CAPACITY

In addition to the standard line of domestic machines in 1/8 and 1/4 horse power sizes, Servel Sales, Inc., manufactures a line of commercial equipment in ice melting capacities up to 1/2 ton per twenty-four hours.

All compressors have two cylinders. The motors range in size from 1/8 horse power on the 350 pound capacity machine to 1 horse power on the 1/2 ton machine. Both water and air cooled types are available.

These machines are supplied with either indirect or direct expansion coils according to the requirements for the particular installation. Either high side or low side floats are supplied depending again upon the application.

This selection of machines makes a unit available for practically any installation of moderate size. For example: ice cream cabinets from 2 to 12 can capacity, commercial refrigerators from 30 to 800 cubic feet and water coolers from 3 to 75 gallons per hour.

The company has recently issued a treatise on commercial refrigerators under the title "Commercial Sales Hand Book" designed as a dealer aid in computing commercial requirements.

COPELAND ADDS NEW ALL PORCELAIN MODEL

Copeland Products, Inc., Detroit, has just announced the addition of another all porcelain refrigerator to its line.

The new model is of five cubic feet



capacity and an ice-making capacity of 108 cubes. It is finished with a gray top, sides and front, while the doors and louvre fronts are of white porcelain.

FRIGIDAIRE MEN WILL VISIT EUROPEAN BRANCHES

L. C. Shannon and E. N. Madden, of the Frigidaire Corp., Dayton, sailed from New York on August 22, for an extended European business trip. They will visit sales branches in virtually every country in Europe, except Russia, Spain and Portugal, to obtain information preparatory to outlining sales programs for 1929.

F. L. Reihle, who has been appointed sales manager of the Milan, Italy, branch sailed on August 19 to assume his new charge. A. J. Boyd, sales manager for India, left Dayton recently to return to his distant territory.

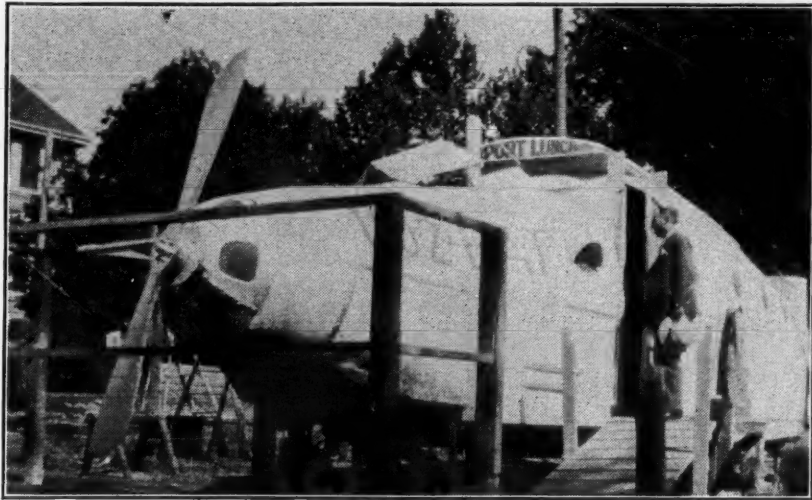
Ferro Enameling Co. Awards Contract for Plant Addition

Ferro Enameling Co., Keith Bldg., Cleveland, Ohio, has awarded the contract for a 2-story plant addition, 54 feet by 66 feet, to P. Kirschner Co., 2725 Pittsburgh Ave., Cleveland.

C. R. Waters Joins Ferro Enameling Co.

Curtiss R. Waters, formerly with the Cambia Clay Products Co., Black Fork, Ohio, is now associated with the Ferro Enameling Co. of Cleveland, Ohio.

The Only Record This Plane Holds Is For Food Well Kept and Served



The first unit of a chain of twelve airplane lunch establishments, which are built exactly like an airplane, the body housing the restaurant with a seating capacity of twenty persons, was recently opened at Sonora, Calif. The kitchen, which is completely equipped with electrical appliances in each case, and includes an electric refrigerator, occupies the rear of the plane body.

During the hot season iced drinks are served in great quantities, coffee and tea being poured directly from electric percolators into large glasses containing cubes of ice made in the electrically operated Kelvinator.

Access to the dining room is obtained by a runway leading from the ground to the doorway. On entering, one finds a long counter equipped with twenty leather stools. Back of this counter are the attendants attired in white costumes and wearing aviation caps. An individual electric waffle iron is arranged at each seat on the counter. If it is desired the patron can cook his own waffles. All coffee is made in electric percolators and poured directly from the percolator into the cups. Special indirect lighting fixtures arranged on the walls and in the ceiling provide abundance of light, while during the daytime light is provided by means of regular airplane type windows.

On approaching this unique establishment the attention is attracted by the revolving propeller which draws the air from the body of the plane, through openings in the front end, making a constant change of air throughout the interior.

HOLMES PRODUCTS, INC. INTRODUCES NEW MACHINE

Holmes Products, Inc., 2 West 46th St., New York, N. Y., recently organized to take over the manufacture and sales of the Allison electric refrigerator, have introduced a machine called the "Holmes."

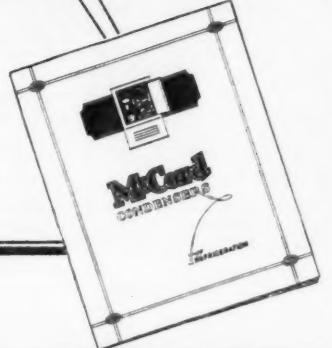
Officers of the company are: Julius Fleishman Holmes, president; John F. Plummer, vice-president and general manager; H. L. Shields, treasurer, and John A. Sturges, secretary.

The company's factory at Bridgeport, Conn., provides 125,000 square feet of floor space. Edwards, Ewing & Jones, Inc., advertising agency, are directing the advertising of the company. Plans call for the use of magazines and newspapers.

If You have not sent
for this Book on
McCord Condensers
~ do it **Now!**

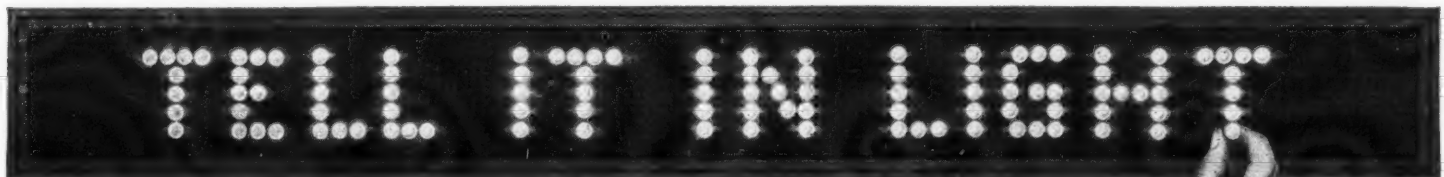
McCord Made

The latest catalog by McCord illustrating the improved spiral fin type of condenser as supplied by McCord to leading refrigeration makers. The comparative engineering tests of McCord and plain type tubing are of interest to engineers, designers and distributors. A copy will be mailed on receipt of your request on your office stationery.



McCord Radiator & Mfg. Co.
Detroit, Mich.

| | | | |
|---|--|---------|--|
| H O U S E H O L D | QUALITY | SERVICE | C O M M E R C I A L |
| | HERRICK | | |
| | THE ARISTOCRAT OF REFRIGERATORS | | |
| | ELECTRIC REFRIGERATION HERRICK REFRIGERATOR CO., 1019 Cedar St. Waterloo, Iowa | | |



Wanted: DISTRIBUTORS!

Keep your sales force
together—interested—all winter

See the new TELLITE Sign which can be changed in wording every day without additional cost. A brilliant sign—easy to read—and an economical one. Every business needs at least one TELLITE. You can use several for your own refrigeration business. But when business is slack, here's the money-maker that will keep your sales force happy, interested, making good profits. Read what Postal Telegraph says. Then send the coupon for full details. Or better yet, wire or come to see us about reserving territory. **But act now.**

Postal Telegraph says:

(NOTE)

The TELLITE Signs we purchased from you have more than exceeded our expectations. We find in the TELLITE sign a most valuable advertising medium.

(Coupon)

Tellite Mfg. Company
Finchley Bldg.
23 East Jackson Blvd., Chicago

Send full details of Tellite proposition and territory still open.

Name _____

Address _____

City _____ State _____

Attention _____

ELECTRIC REFRIGERATION NEWS

The Business Newspaper of the Electric Refrigeration Industry
PUBLISHED EVERY TWO WEEKS BY

BUSINESS NEWS PUBLISHING CO.

554 Maccabees Building, Woodward Avenue and Putnam Street
Detroit, Michigan. Telephones: Northway 4243-4244

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HUGH J. MOORE, Assistant Editor GEORGE N. CONGDON, Business Manager

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AUGUST 29, 1928

Estimating the Market

OF all the questions regarding electric refrigeration which are directed to the NEWS the ones which recur most frequently have to do with past, present and future sales. How many units have been sold, how many are being sold and how many can be sold? Everybody wants to know. Some of the inquirers do not seem to be particular as to the accuracy of the figures, or how the figures are obtained, just so they have figures.

It would be interesting and valuable to know approximately how many machines are in use to date, with the total divided into individual home, apartment house, and commercial installations. It would also be helpful to have the subdivisions of the commercial applications. Unless the figures indicated at least the two main divisions, domestic and commercial, the data would be of comparatively little value.

The fact is that nobody knows for sure how many electric refrigerators have been sold in the past. Some of the companies do not even know how many of their own make have been produced or put in service. An executive of one company recently reported having found some 60 machines in one district of which his company had no record whatever. Little faith is put in the serial numbers which appear on name plates and which might be presumed to indicate the total number of units manufactured by that company. The first machine may have been numbered 1000, or 10,000, for that matter. Conservative estimates place the total number in use at the end of 1927 at approximately three-quarters of a million units while others put the figure at one million or more.

Figures showing the total sales of the principal classes of equipment during 1928 should be made available as a guide to production and selling programs for the coming year. The NEWS urges that this step be taken as an aid to industry stabilization. The tendency in the past has been to exaggerate and this habit, we assert, has done the industry no good. In the past years, it must be admitted, sales failed to materialize according to the over-optimistic predictions. In planning for this year, however, most of the manufacturers were decidedly cautious but even those who went ahead with large scale operations were fortunate in finding a ready market for their stocks. It seems to be generally agreed that 1928 has been a year in which expectations have been realized to a large extent. We suggest, therefore, that it is a good time to begin talking in terms of actual production.

For 1929 we urge that monthly production figures be compiled through some neutral agency with suitable facilities and an established reputation for integrity. The Department of Commerce, the National Electrical Manufacturers Association, or the Refrigeration Manufacturers Council (now in process of organization) may be called upon to undertake this work. It is not necessary nor desirable that the figures coming from any one company or group of companies be made known. The manufacturer must have complete confidence that his own report will not be divulged in any manner to his competitors. The total figures, showing the monthly trend of business will aid in keeping production in step with demand. The effect will be to increase greatly the working capital of the industry. The added confidence in the industry which will be given to investors by such data will add millions of dollars to the industry's financial structure.

Regarding 1928 production, estimates made early in the year range from 400,000 to 600,000 units. Reports indicate that production schedules have been increased rather than reduced and it is therefore quite probable that the total number will reach something over half a million. There is every reason to believe that production will be increased considerably during 1929 and perhaps it is safe to set up a figure of three-quarter million units as a probable minimum for 1929. Please note that these figures are simply guesses since the leading manufacturers are as yet unwilling to tell how many machines they have made during the first six months and in the absence of accurate figures from a half-dozen of the leading companies it is impossible to arrive at any authentic total.

As to the potential market, perhaps one guess is as good as another. After all the potential market is such a nebulous quantity and the saturation point is so far in the future that it has little significance in the operations of the average manufacturer. The limit to which a particular company may go in selling its product depends much more upon the experience and ability of the organization to make and sell a reliable machine which will render satisfactory service to the customer. If the design is faulty, if production methods are inefficient, if the sales department is not properly trained and managed the company cannot hope to be much of a factor in the saturation process.

But, as previously mentioned, there is a pressing demand for figures which will give "a picture" of the future possibilities of electric refrigeration. In estimating the immediate potential market for electric refrigeration two broad divisions of the field are usually considered. Wired homes and income tax figures provide a basis for estimating the possible sales of household machines. Census data show the number of retail food stores, and other establishments, which form the market for commercial equipment. Estimates differ but a billion dollars in the household field and another billion dollars in the commercial field represent round number figures which may be close enough for most purposes.

San Francisco Restaurant Designed for Use of Complete Refrigeration Equipment



The Ellis street lunch room operated by C. A. Compton is of reinforced steel and concrete, three stories in height and was designed and built especially for Mr. Compton's business according to his own ideas. This is considered to be one of the finest and best equipped lunch rooms of this type on the Pacific Coast.

The motors and condensers for the electrically operated automatic refrigeration plant are enclosed in a special concrete room. This plant supplies refrigeration throughout the building. This plant also manufactures all ice used in the lunch room.

One of the refrigerators is located in

the store room and is of large size, being used for storing vegetables, cheese, melons, ham, bacon and canned fruits. Two refrigerators are used for various kinds of meat. A fourth is used for storing ice. The fifth, in the basement, is used for storing maple sugar used in making maple syrup. There are two refrigeration rooms in the bake shop for the bakers' use.

A Wayne water softener is located near the refrigerating plant. The water after passing through the softener and filter tanks, is cooled in a large refrigerating tank located in the store room. From the refrigerating tank the water

is pumped to the various points throughout the building where it is to be used. The water fountain is conveniently located so that when a customer is served he merely turns around and finds himself in front of the fountain.

A neat metal sign invites customers to fill thermos bottles with this water, which is purified and softened.

The milk and cream urns are all conveniently arranged for the counter-men's use and are connected with the refrigerating plant. At a point near the center of the serving counter is a porcelain refrigerator compartment in which salads are kept.

N. E. L. A. Commercial Director Discusses Relation of Central Station to Independent Dealer

An Address on "Electrical Inter-trade Problems" by C. E. Greenwood, Commercial Director, National Electric Light Association at "Camp Co-operation VIII," Association Island, N. Y., August 6, 1928.

MY subject might have read "Inter-Group Merchandising Problems," because different branches of the industry, in addition to the general merchandising trades, seem to feel that they need friendly consideration from the power company.

The power company needs friends more than money because the finger of suspicion has been pointed at the utility throughout the hearings before the Federal Trade Commission. I feel certain that when the power company gets opportunity it will justify satisfactorily all acts for which it is criticized. It needs the support of the industry until it is proven that it isn't deserving of that support.

The jobber needs a friend because he is confronted with a fight for existence. In some ways he is a victim of his own errors, but more often he has been affected by economic and organizational changes within the electrical industry. Recently, the leading manufacturers being forced to obtain more outlets for their scheduled volume production, have been establishing chains of wholesale outlets. This process has squeezed the "independent," so-called, and competition has become more keen in the jobber field.

The manufacturer has been by-passing the jobber as a means of distribution. In some cases the dealer has done likewise. And numerous mergers of power companies have resulted in large-scale buying for a chain of properties, orders going direct to the manufacturer. The jobber cannot live on odd-lot buying only, and it is not surprising, even if unfair, that the jobber sometimes places part of the blame for his dilemma on the power company.

In passing, let me state that in my opinion the jobber-wholesaler has an important place in the distribution of electrical material in any community, and I believe that when the jobber is definitely adjusted to new conditions, is operating efficiently and with low warehousing cost, he can show the power company merchant how it will be to his advantage to patronize the community wholesaler, rather than warehouse his own expensive stocks.

Now, one further thought as a background to our trade problems. Just as there have been different schools of thought among power company executives on the subject of "Should the power company merchandise?" so there have been varying opinions, within and without the industry, on the purposes of the power company merchandising department, and the practices it should follow. For many years there has been discord between the power company and electrical dealer on the subject of merchandising and other commercial practices.

Recently there has been some agitation which would lead those not fully informed to believe that the utility companies have in mind the initiation of some new policy which would launch them into the wiring business. This is not true. The 1928 report of the Wiring Committee of the N. E. L. A., entitled "Sell Additional Wiring," has served as a basis for some of these rumors. I commend a complete and thorough reading of this report. The whole spirit of the report is one of local co-operative effort in electrical development. The place of the local electric league is particularly emphasized.

Although I have been commercial director of the N. E. L. A. but four months, I have traveled extensively over the country and feel well informed as to the general attitude of utilities towards wiring. As accurately as I can determine, there have been no cases of utility companies going into the wiring business in the past year. I know of none which contemplate such a step, but I do know of companies that went out of the wiring business years

ago. In fact, the attitude of fuller co-operation between all factors in electrical development is growing positively and surely.

Glowing embers of discontent on merchandise practice are periodically fanned into flame, and in recent months the conflagration in some communities has spread to the general merchandising trades.

The electric dealer, like the jobber, has been affected by organizational changes. Public acceptance of the smaller electric devices, followed up by able and persistent activity on the part of the manufacturer for wide distribution of his product, has placed appliances in stores of merchants of numerous classes. I venture the opinion that the rapid growth of electrical retail outlets for appliances, and the chain store for wiring supplies, coupled with the manufacturer-to-consumer selling, has had a much greater effect on depleting the business of the electric dealer than the merchandising practices of the power company, with few exceptions. And yet, the prevailing electric dealer opinion has been that the power company merchandising operations have been mainly responsible for destroying their business.

There can be no doubt that the merchandising practice of some of the power companies has been, and is, destructive for competition. How did this happen?

Do you recall that a few years ago it became the practice of some few of the leading power companies to publish their merchandising losses? The fact is that the losses indicated were not based on standard accounting practice and did not represent a true picture of merchandising operations. However, the slogan of merchandise managers became "Cut Down the Red." The jobber was by-passed on purchases which went direct to the factory to obtain the extra five per cent. Volume purchases and large stocks started an orgy of high-pressure selling which affected the business of other dealers.

The next step was the commercial awakening of the power company to its low standing in the market place, and the realization that intensified promotion of electric appliances was one sure way of selling more kilowatt hours. And so there was added another urge for marketing activity. It is a matter of import that during the years from 1922 to 1926 there was a drop of 10 per cent in kilowatt hours sold per dollar invested in residence service, and although there was an increase of almost one billion kilowatt hours sold to residences last year, power companies advanced only one-seventh of the distance to their goal laid down at the N. E. L. A. Convention in 1927 of "One More Kilo-

watt Hour per Day." I would establish the point that there has been an element of self-preservation in the selling practices adopted, but tackling the job with bare fists has cost the power company the good will of the trade in many communities.

Power company advertising has revealed cut prices, premiums, uneconomic terms, and often misleading statements of value. The general merchandising trades unfortunately voiced their objections in their own trade journals, and were not heard until a copy of one of the articles came to the attention of the Merchandising Committee of the N. E. L. A. We searched for more of these editorials, and in them our real trade problems were revealed. Witness some of these statements, and you can readily grasp the viewpoint. Here is a paragraph of comment from the *Hardware Dealer*:

"The theory of rate fixing for utilities contemplates that the merchandising department shall be entirely separated and that no expenses shall go into the general fund which were incurred in the sale and installation of appliances. For the utility's expense is a most important factor in determining the rates which consumers pay for gas, electricity, etc.

"And it is easy to see that many expenses connected with the sale of appliances may get into this general expense account. The natural result would be that while the utility, according to accurate accounting, is losing money from the sale of merchandise, such a loss does not matter since it is made up by the rates paid."

The *Retail Ledger* of Philadelphia commented editorially as follows:

"If an entire separation of their merchandising and their public utility functions could be brought about, then the central stations, compelled to have their merchandising stand on its own feet, no longer able to dump their merchandising losses upon the users of gas and current, would have to merchandise for a profit.

"In other words, from unnatural competitors, with a profit virtually guaranteed, they would become natural competitors and live retailers would no longer have reason to fear them."

The *Electrictist* said: "For years the electrical contractor-dealer industry has tried to show the central stations, and the jobbers and the manufacturers who encouraged the power companies, that sales activities conducted without regard for profit or for the loss that would result to others, were unfair, and in the long run would defeat the very purpose of the utilities.

"The electrical dealers cannot compete and that constitutes the major reason why a growing number of the better class of contractor-dealers are closing their appliance departments."

There was likewise interesting comment on the floor of the convention of the National Hardware Association (the hardware wholesalers). Following the talk of one of the members who challenged the right of the central stations to sell electrical appliances at all, and suggested that a motion for legal steps be taken by the Association to prevent the central stations from selling appliances, the president of the Association was called upon and he stated that he did not think that the central stations knew any more about merchandising appliances than they knew about merchandising gas and electricity, and in his opinion they did not know how to sell either one!

Another viewpoint, and the most serious criticism to answer was the angle taken by the representatives of the National Retail Dry Goods Association. Like the furniture dealers, they stated that they were not interested in premiums or cut prices, and the power companies could do as they wished if they could make money by such practices, but they should make money, or quit. To quote excerpts from an editorial in the bulletin of the Dry Goods Association:

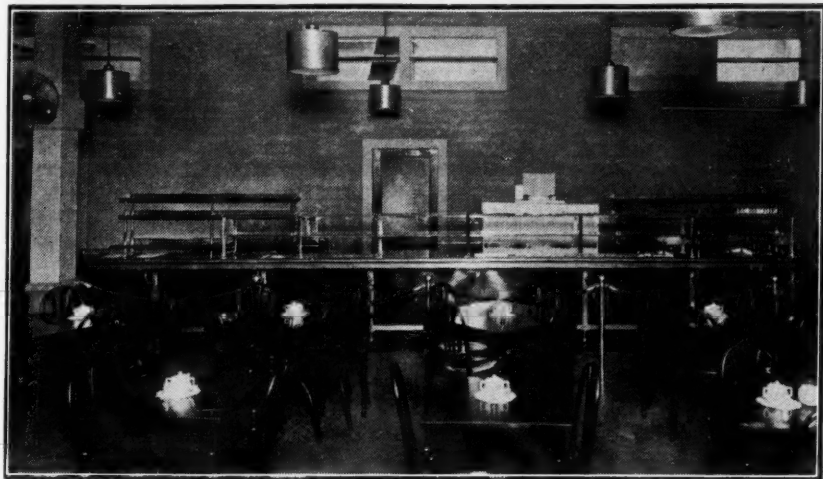
"Many members of this Association have complained of the type of competition they face in the merchandising policies of the public utility corporations. They sell appliances because naturally enough they want to increase the use of their own products, gas and electricity. 'Building the load' is the term used. Retailers who are worthy the name have no need to fear competition from other concerns, which, like their own, must make a profit; but it is impossible to compete with the fellow who doesn't need to make a profit—whose ultimate profit is guaranteed by the state." Again it states:

"In every field the manufacturer has to undertake the pioneering work himself, and apparently there is no good reason why public utility corporations should dump many thousands of dollars into this work and then charge it back to users of gas and current.

"One particularly vicious element in the situation is that under the system, the very retailers who must accept the competition in merchandising of the central stations, are obliged to help pay the merchandising losses of these competitors—for retailers are large users of light and power."

These references make clear the questions at issue. First the broad ones of "Should the power company merchandise?" and "Are the substantial losses in selling operation due to lack of merchandising brains?" Secondly, we have an outline of merchandising practices which are ob-

G.E. Goes After the "Big Box" Business



A PL-17 model refrigerator was installed in the Wedgewood Cafeteria, Montclair, N. J., in the "Big Box" campaign of the Newark, N. J., distributor of General Electric Company. The Wedgewood Cafeteria is said to be the largest cafeteria in New Jersey.

jectionable to the hardware jobbers and retailers, and the electrictists.

As you know, there were joint trades conferences called by the Merchandising Committee of the N. E. L. A.—three of them—with representatives of six associations present, in addition to the N. E. L. A. representatives. The attitude of these gentlemen was at first vindictive. They aired their grievances and gave free expression to their views on the policy, as well as the right of the power company to merchandise. Exhibits of advertising revealed a flood of examples of cut prices, premiums, and uneconomic terms by both power company and independent dealer. The power company ads were centered in a few communities and justified criticism. Terms that were, and are now, uneconomic, were also revealed.

It was not difficult for unprejudiced minds to get together on a solution of these problems of details in operation, but early in our deliberations it was evident that the general merchandising trades did not understand the nature of the utility business, or power company promotional effort; and the intricacies of accounting practice offered even a more complex problem for solution.

It is too easily said that the power company merchandising manager does not know how to merchandise, and it is suggested that the companies would do well to hire expert merchandisers from the department store field. I can conceive of no greater error (unless there is a complete reversal of policy in the power company). The "expert merchandiser" from the department store would exist in the utility company perhaps one week, if he carried on his shoulders the restrictions of some companies. On the other hand, with the prices, terms and conditions that certain power companies offer, an "expert" is not needed. Merchandising becomes only a title for a form of distribution and there can be no pride in obtaining startling volume when no attempt is made to show a profit in operation. Please bear in mind that this reference is to general practice and not to occasional "leader" sales.

Now it is unfortunate for the power company that there are not standard accounting systems for merchandising operations, and furthermore that the "profit figures" usually do not give a true picture of selling activities. The independent merchant understands the term "selling," because the merchandising department of the power company carries pioneering expenses, broad promotional and advertising expenses of a "service" as well as material, and policy accounts not common to the independent dealer, and yet incurred for the indirect benefit of the dealer through broadening the market for his wares.

Many of you in this room attended the last convention of the N. E. L. A. at Atlantic City and you heard Oswald W. Knauth, vice-president of R. H. Macy & Co., explain the elements of good merchandising, and the intricate problems of the independent trades, and also heard him justly criticize some of the practices indulged in by the utility company. Mr. Knauth arrived at the conclusion that the independent dealer can do a better job in merchandising of electric devices than the power company. It was our pleasure in the Merchandising Committee, to have Mr. Knauth at one of the joint trade conferences as a representative of the National Retail Dry Goods Association. He misunderstood then, and his mind is not clarified now on some of the demands of power company promotion.

Just because the power company doesn't do a constructive and profitable job in selling now, is no reason to believe that it cannot be done. My experience assures me that it can be done, but with difficulty. The merchandise manager must have that particular job to do, and nothing more; he must be capable; he must have executive backing in obtaining the most efficient service from other departments serving the merchandising department, and in establishing practices common to the business.

At once you say in your mind "It is not possible." However, I am optimistic that more attention is to be given the requirements of the power company merchandiser, that accounting systems are going to be standardized, or some definite action will be taken to establish the merchandising branch of the business on a sound economic operating basis.

The inter-trade problems are internal with the trades themselves, as well as between trades. We are only getting a fair start on our way to solving it.

Representatives of other trades at the joint trades conferences learned much about the power company problem—and that broad-gauged minds represented the trades is indicated in their recognition of the leadership of the power company in merchandising, if constructive, and the fact that they were signatory to the "Declaration of General Merchandising Principles" which have been distributed.

To further crystallize discussion on the subject of merchandise practice and clarify the intent of the general merchandising principles, the suggested merchandising standards were developed by the General

Merchandising Committee, as a guide to members of our Association.

Here is evidence of teamwork, and teamwork in merchandising I submit is one answer to our inter-trade problem. The preponderance of opinion on the subject of whether the central station should, or should not merchandise, is in the affirmative—they should. The power company not only has a legal right, but a duty to merchandise. Furthermore, the Kansas Supreme Court in a recent decision affecting the Wichita Gas Co. has reversed a decision of the Kansas Commission, and allowed the losses in merchandising by that company to be charged against "operation." The court takes the position that the sale of appliances is not so much "merchandising" as it is an effective means of increasing the sale of current.

Let me reiterate. The answer to the inter-trade problems is in teamwork. In the electric family this may take the form of direct-contact selling between power company and dealer, as in the San Joaquin Light Co. in the west, or the Boston Edison Plan in the east. The California company organizes a subsidiary and pays a definite amount per kilowatt for load building service. And let me emphasize, that considering the amount paid for that load building as fair (and the plan seems to be accepted by the electric trade as ideal, and the amount paid as fair) then the losses sustained by the merchandising department of the power company are not as bad as they are pictured. The power company competitive selling practices are the crux of the problem because they affect the independent trades in other lines.

It is my personal opinion that the power company and the trades are so closely allied in the sale of appliances, that the power company—not through any legal obligation or other pressure, but solely from a desire for more business, encouragement of outlets, and a sense of willing teamwork—will prevent destructive selling practices from maintaining. Monopoly of the electric appliance field would ultimately work to the disadvantage of the power company.

Seven associations are now signatory to the Declaration of Merchandising Principles. No association can exercise police power over its membership. Therefore, our inter-trade problem now becomes a local issue and I can conceive of no more appropriate medium for effective accomplishment than the local electric league.

We have had evidences of teamwork in the study of the wiring situation which is now in progress through the Industry Sales Conference; we have had, and there is now being planned, teamwork with groups interested in lighting; and no, there is glorious opportunity for local teamwork in merchandising.

May I suggest to the League Council a study of co-operative sales practices now in operation? They will be found to apply to the electric dealer, and the small hardware store. Other trades may not be interested in co-operative sales plans with the power company, but they can be tied in with league sales activities.

Try to sell your local power companies on the best co-operative sales plan you can find in operation. Go to the commercial manager with the complete story—one that will best fit into the local setting.

Adopt sound merchandising principles as agreed to by national spokesmen for the trade.

With few exceptions, there is no reason why the power companies cannot forge ahead under the standards suggested, and constructively build a market for all those interested in the sale of electric devices in the community. These principles are the answer to a complex problem. They are an answer insofar as they are the first definite step in focussing attention on the short comings of our power company merchandising policy, the vital need of better accounting methods, and of the final establishing of a sound basis on which to build our business.

Is there not glorious opportunity here for a definite constructive program? I believe we may go forward with assurance that the power company will not fail in this opportunity.

Distributors!

a new distribution policy for the Cooke Seal Ring



Eliminates stuffing box packing

THE Cooke Seal Ring

is about to choose distributors throughout the United States and abroad. During the past two years we have successfully sold nearly 200,000 Rings—solely by

mail through inquiries from our extensive trade journal advertising. The business has now grown to the point and our factory output has been so increased, that we are able to take this step, long contemplated, and select territorial sales agents.

The Cooke Seal Ring is a rigidly patented mechanical device, absolutely sealing any rotating shaft and revolving with it. It forms a leak-tight seal against the most volatile liquids or gases at any pressure. It eliminates packing, scored shafts, hot boxes, 90% friction, oil waste, dirt and leakage.

It is already standard equipment in a variety of products. In addition Sun Oil Company, Fairbanks-Morse, Firestone, B. F. Sturtevant, Chicago Pump—hundreds of world-

famous firms are today using the Cooke Seal Ring in their plants. On the basis of continual reorders it is definitely a proven success. Mail orders are coming in from England, Italy, Germany, South Africa and elsewhere.

Its applications are many. Its field is limitless. Pumps, trucks, motor cars, compressors, oil burners, iceless refrigerators, electric sinks—thousands of firms can improve their product with this device. Power and marine plants, refineries, factories can increase their efficiency and save money.

Exclusive territories will shortly be allotted to reputable financially responsible sales organizations equipped to sell this device in the wide variety of industries where it can be profitably used. The organizations selected will find the Cooke Seal Ring franchise a year-after-year money maker of infinite possibility.

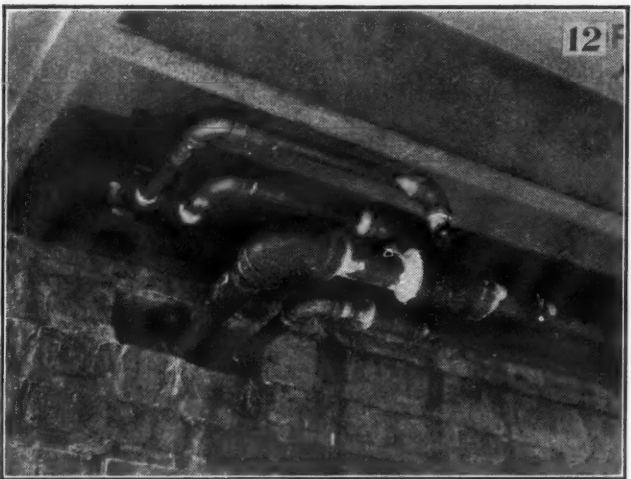
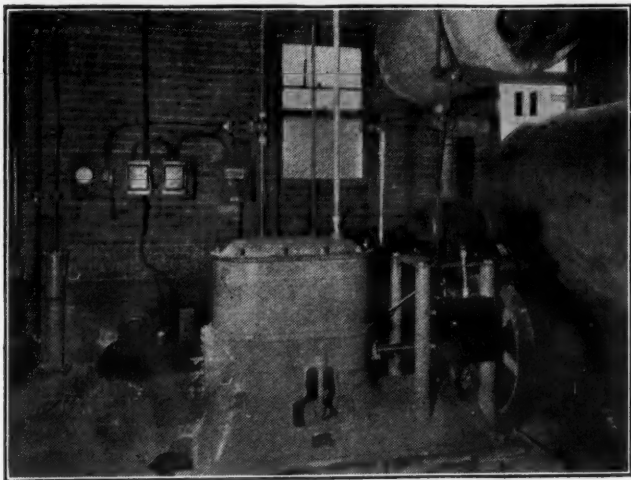
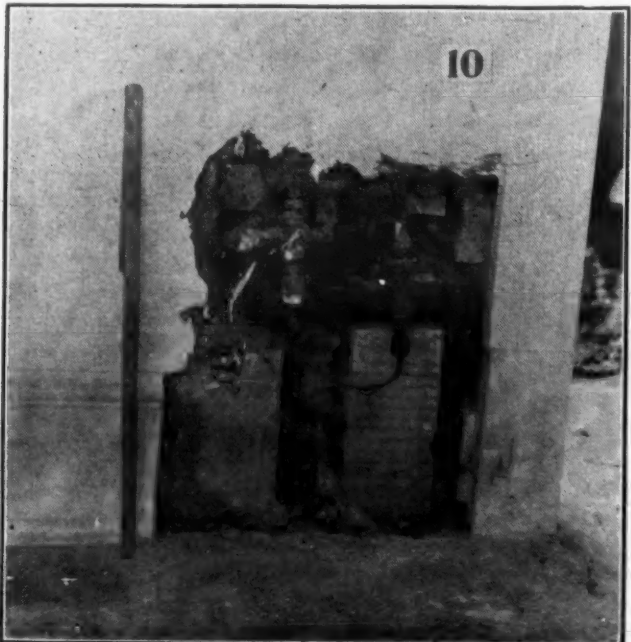
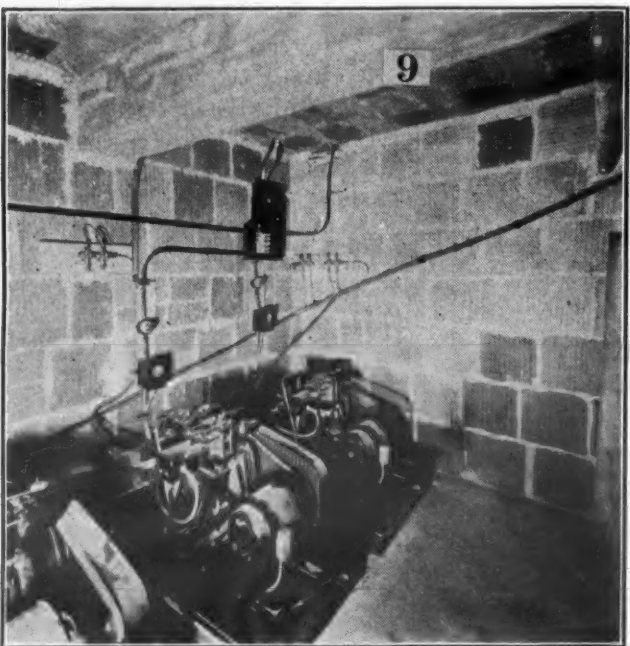
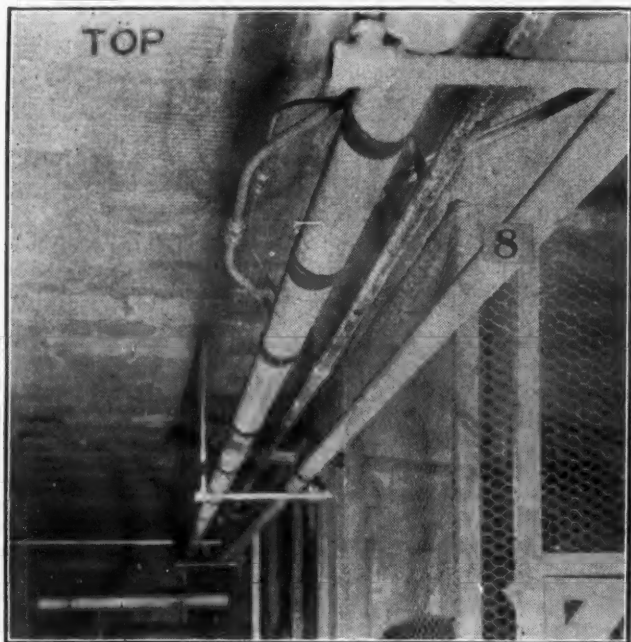
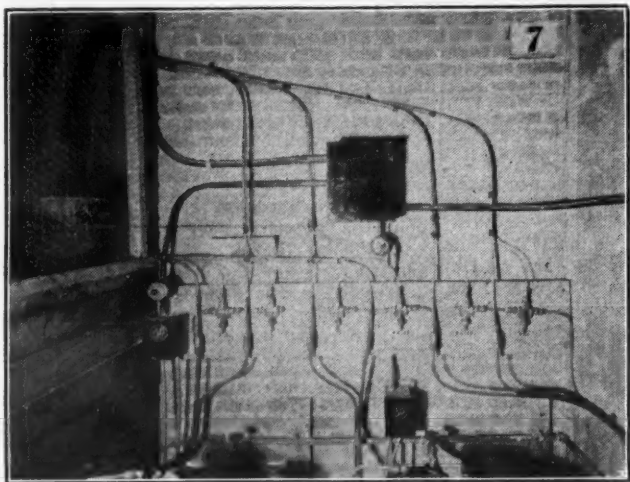
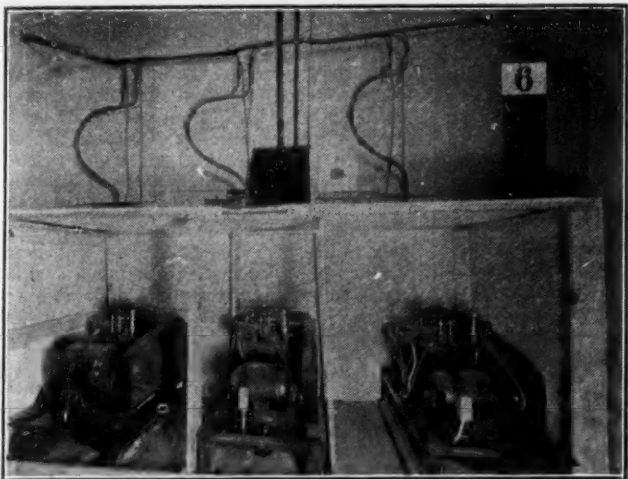
Established sales organizations capably covering an industrial territory anywhere are invited to write or wire us at once.

COOKE Seal Ring

20 NORTH GREEN STREET, Dept. F, CHICAGO, ILLINOIS

Wilson Contrasts Safe and Unsafe Installations of Multiple Systems

Note: Fremont Wilson, consulting engineer of New York, has appeared at various safety code meetings in opposition to the use of the multiple system for apartment house installations. The News invited Mr. Wilson to present his objections and submit proof of his contention that multiple work is unsafe. A letter with five photographs was published August 1. Below is a second letter with ten additional photographs. The second column of pictures shows multiple work which Mr. Wilson considers safe and proper.



FREMONT WILSON
Consulting Engineer
50 Church St., New York, N. Y.
SUBJECT: Multiple Systems.
August 24, 1928.
ELECTRIC REFRIGERATION NEWS,
Detroit, Michigan.

I am enclosing herewith two sets of photographs which will clearly indicate to your readers, I think, the difference between safe and dangerous methods of installations of "multiple systems." The type of equipment were taken in an old building being equipped for a multiple refrigerator system, and the other photographs, Nos. 6, 7, 8, 9 and 10, are typical of multiple installations in new buildings in the City of Washington, D. C. This last set of photographs were taken under my directions; the first set of photographs were taken through the courtesy of the Peerless Co. of Chicago, and with their permission, are being sent you.

Please note photo No. 6 showing new installation of compressors in a new building, and then compare the conditions as shown by that photograph, with those shown by photograph No. 11 which is of a 5 H. P. 3-ton installation using methanol chloride. Now note photograph No. 7 showing typical branch work at and around the compressor units, and compare that work with that indicated on photographs Nos. 11 and 13, showing the connections immediately at and around the compressor.

Please do not fail to remember that the photographs, showing, what I term a standard type of installation, are taken of a new equipment, in an old building, and the work has not yet been completed. Therefore your readers will please bear in mind that where any unfinished work seems to be indicated, that work will be finished before the plant is started.

Please note the method of securing pipes, both liquid and vapor, as indicated by photograph No. 8, and then contrast that method with the type of pipe work shown on photograph No. 14. You will observe the hazardous method of securing the liquid and vapor lines as shown by photograph No. 8, and which clearly indicates the fact that these pipes, as well as four others which cannot be shown on the photograph, are secured in position only by means of ordinary friction tape, and yet this type of work is being constantly placed in position, and in this particular building there are several hundreds of feet of such pipe work secured on the house pipe lines, by friction tape only. I challenge any reader of your paper, or anyone else, to say that the work indicated on photograph No. 8 should be countenanced by anybody under any circumstances, and yet, sad to relate, it is, as the facts will prove.

We will now refer you, if you please, to photograph No. 9 indicating a compressor installation of three units which are located in the basement of the building, in a room entirely without ventilation except when the door is opened, or left open, and as you will not the liquid and vapor lines are bunched, secured together, if such a phrase may be used, by means of friction tape. Please also note the valves and their connections mounted on the walls, and the method of securing same. In immediate contrast to the refrigeration work, may I ask observance of the electric lighting work which is placed in accordance with standard requirements, the point being there are no standard requirements in the District of Columbia, therefore we have the work as indicated on the photograph.

The method of making safe taps from the feeder line is clearly shown by referring again to photograph No. 12—you will note here that this work is not yet completed, the opening in the brick wall not having been closed or the joints wiped off. What a vast difference there is between the methods employed in the Washington installations, and those shown for the Chicago equipment.

Now for a moment allow me to call your attention to the work as shown on photograph No. 10, this being another Washington installation. You will observe that there has been a pretense or pretext of using conduit so that possibly someone might get the idea that this is what is known as a "conduit protected system." The writer desires to state that from his observation, he knows that this particular conduit only extends down to the ceiling line below the floor line, as shown on the photograph, the pipes below the ceiling line being run exposed and secured in position by friction tape, either fastened to the house pipe lines or tacked to the house walls. Referring again to the photograph, please note the valve connection and observe that, as usual, there is no valve handle in position and no way to turn off the flow of the refrigerant in the liquid line, unless one may be successful in finding a wrench, and in time of a leak this is a dangerous

proposition, as the gas is not likely to wait someone's pleasure in finding the proper wrench to fit the valve stem. Note further that the fitting is so located that the liquid line that is to be run to the refrigerator box, is so set that unless the building structure is partly removed, the liquid line cannot be installed, and even with the removal of the hinge block and part of the door casing, a poor piece of work, and in fact a dangerous piece, will have to be installed. On the fitting to which the vapor lines are connected, you will note that the extension if plugged or capped, and just how they expect or intend to make a connection from this fitting to the box, is left largely to the imagination of the observer. However, the point which the writer desires to very strongly bring out by this exhibit, is the careless, hazardous, and unmechanical methods employed, and also to show that when these fittings are connected to the refrigerator box, said box must then be shoved back against the fittings, and in case of a leak from any of the connections, at or around the two-valve fittings, the box must be drawn out and the valves shut off; but just how this is to be accomplished in case of a leak at either of these fittings, is not quite clear to the writer, as it is not likely that with an irritant gas escaping from these fittings or valves, that anyone except an expert with a mask, would attempt to shut off the flow on either line.

This is not an exceptional case, but the general rule as to mounting valves in this particular equipment and then placing the refrigerator box back against the wall, thus covering up the entire equipment; and it is to be noted that the connection, from the box to the two valve fittings, is of copper tubing jointed at both ends, and any movement of the box may break or loosen the connections at the ends of the tubes.

This character of work certainly is to be deprecated, and is not of the class of work as is so clearly shown by the photographs of the Peerless Co.

One more photograph of standard work can, I think, be properly shown at this point, and I therefore refer you to photographs Nos. 12 and 15, which show how they tap off the branch lines from the main lines, and they then take these lines directly up to the refrigerator box outlet and there make standard connections.

May I refer back to photograph No. 7 to point out the hazards of this particular equipment from a fireman's standpoint. You will note that there are four lines—eight tubes—wrapped with tape, tacked to the wall and then they pass upward and outward through the several storerooms located at this point, emerging from the last storeroom at the point shown on photograph No. 8, where they are passed around a hanger and then laid alongside the house pipe line and attached thereto by means of friction tape. Fires in storerooms of this character are not at all unusual, and in case of a fire in any of these particular storerooms, the firemen will meet with a new hazard, and a dangerous one; inasmuch, as to attack, or to find a fire, they must begin pulling out the contents of the storerooms, and in doing so they are very liable to pull down the bunch of pipes—eight in number—four of which contain liquid irritant gas. The question is, what is to become of the firemen in case of such an accident? I fail to understand why anyone who has the slightest regard for the household refrigeration interest, will for one moment countenance any such work as is shown on the photographs taken in Washington, D. C., especially bearing in mind that the system as illustrated contains a highly irritant gas, and the fire records of Washington, D. C., show quite a number of alarms sent out to the Rescue Squad on account of the escape of this particular kind of irritant gas.

Judging from the many letters that the writer has received as a result of the first article which appeared in your August 1st issue, may I again state my position as regards Multiple Systems, which is:

I am opposed and have been for many years, to any multiple system of refrigeration boxes in buildings used as residence buildings, especially if said system of refrigeration contains a poisonous or irritant gas; but, fully recognizing the fact of the possibilities of the art of household refrigeration being advanced, as has many other industries, to a much safer condition, the writer takes the stand, that, if multiple systems are to be permitted, they should only be sanctioned by the fire and casualty interests, and the fire and health departments throughout the country; when, and if, said installations are made equal to standard type of ammonia installations such as are exemplified in the few photographs submitted herewith, showing an uncompleted equipment in an old building.

Very truly yours,
FREMONT WILSON.

The "In Between" Market Offers New Profit Possibilities for the Dealer

By G. E. Tabor, Parker Ice Machine Co., San Bernardino, Calif.

The market for the application of commercial refrigeration between the small retail stores and the large industrial plants is proving to be a most fruitful field for manufacturers of refrigeration. The market for their products is almost unlimited and eventually automatic refrigeration will have entirely replaced ice in this particular field.

Automatic refrigeration will be at its best in servicing meat markets, grocery stores, dairies, ice cream manufacturers, produce houses, hotels, apartments, clubs, restaurants, hospitals, milk depots, drinking water requirements and mortuaries, and it is along this line that manufacturers of refrigerating appliances will design their machinery and it will be in this field that competition will be the keenest.

What part is the up-to-date dealer going to play to secure his rightful share of this middle class of business? If he is a progressive dealer he will make a thorough study of refrigeration and will also teach his salesmen. He will increase his volume of business without materially increasing his overhead by adding machines to his present line that will handle any refrigeration problem economically. He will be

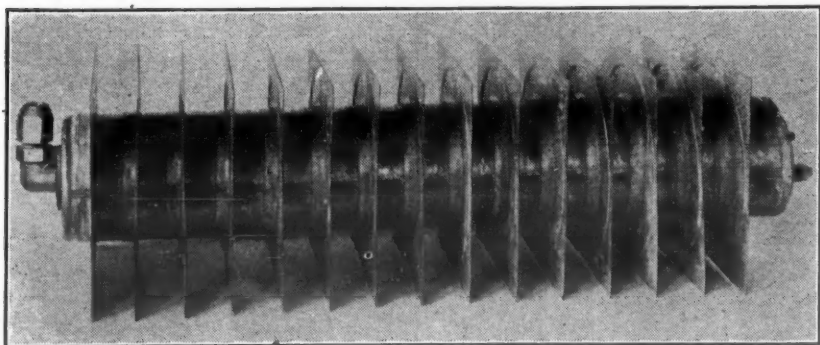
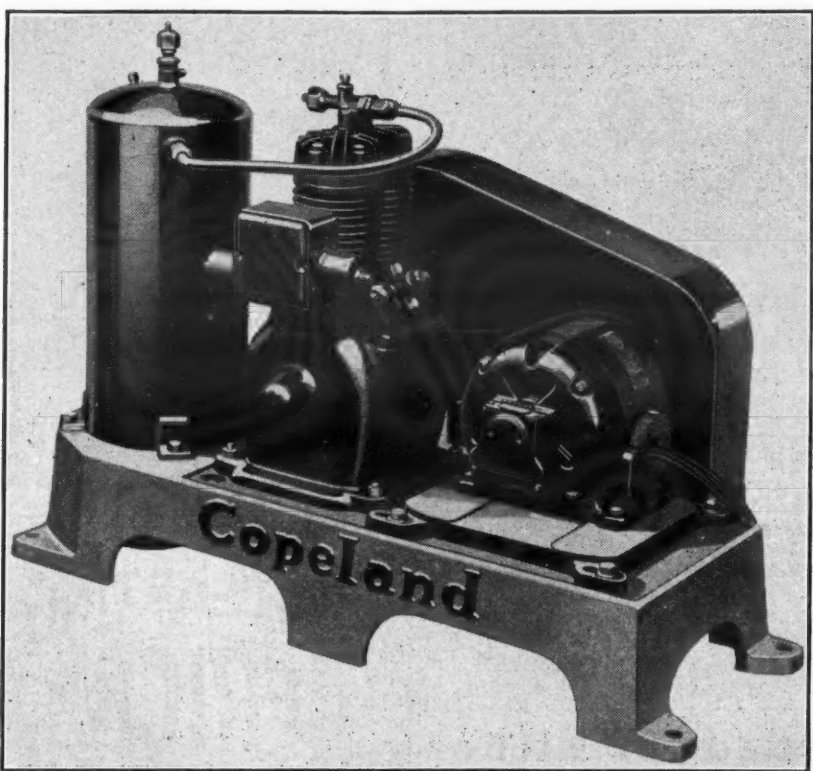
recognized as the refrigeration expert in his locality and prospective buyers will deal with him knowing that he can furnish their refrigeration needs no matter how small or how large.

The engineers of the Parker Ice Machine Co. anticipating the middle class market have designed ammonia machines to take care of installations requiring from 1/2 to 5 tons of refrigeration per 24 hours. These machines have a triple V-belt drive. The circulating pump is direct connected to the motor. Specially designed safety valves reduce danger to a minimum. These features are contained in the Parker models, 140, 170 and 210.

The Parker company is starting the manufacture of sulphur dioxide equipment in capacities ranging from 100 to 1,000 pounds of melting ice per day. This equipment is designed for use on soda fountains, small apartment house work, individual freezer cases and ice cream cabinets.

The company manufactures its own automatic expansion valves, centrifugal pumps and has a complete woodworking department manufacturing storage boxes, ice cream cabinets and similar equipment. The company reports that this year's sales are 30 per cent greater than those of last year.

Copeland Adds a New Compressor And the Zero Tube Cooling Unit



Copeland Products, Inc., Detroit, have just added a new commercial and multiple installation condensing unit to their line. This unit known as model "W" has two cylinders, is powered by a three-quarter horsepower motor. Methyl chloride is used as a refrigerant. The condenser coil is water cooled.

This unit has an ice melting capacity of 550 pounds per day operating on a 16 hour basis with tap water at 60 degree temperature or 500 pounds with an 80 degree tap water temperature. The compressor operates at a speed of 250 r. p. m.

The condenser is cooled with a three-row water coil, while the condensing shell and receiver are integral for greater strength. The water control consists of an automatic water-regulating valve, working by pressure from the high pressure side, which supplies water to the con-

denser according to its needs. Water is used only during the running period of the machine, though during its idle period water is allowed to trickle through in a very small quantity to prevent sticking of the valve. A high pressure cutout is provided in connection with the condensing unit to shut down the motor should the pressure exceed 150 pounds.

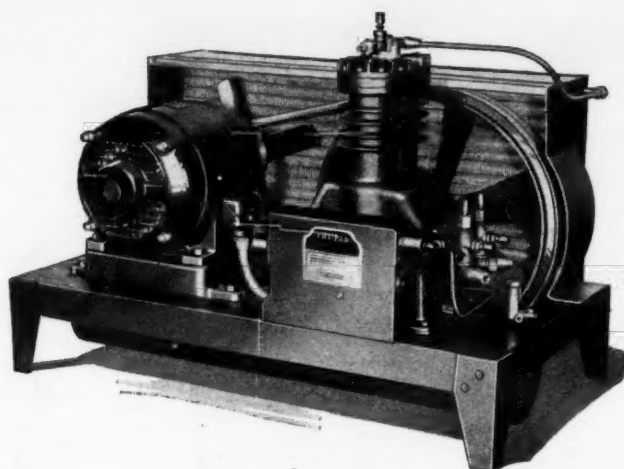
In addition to this new condensing unit, Copeland has also introduced a new cooling unit known as the Zero Tube.

These tubes, ranging in length from 12 inches to eight feet, are made to fit practically every type of installation, and can be used in any combination. They can be hooked up together, in series as well as in parallel, end to end, or side by side, thus making it possible to use one small tube to refrigerate a small space or a great many tubes to provide the necessary surface for a large space.

The Zero Tube consists of a tinned copper tube, four inches in diameter, on which are affixed copper fins. These fins are seven inches square. Inside the tube are the customary coils such as used in a brine tank. These are wound spirally—both ends of the tube are closed, and it is filled with brine. This system it is claimed gives the combined advantages of the fin system and the brine system.

The tubes are for use with an expansion valve, but if two or more coils are connected in series only one valve is necessary. The tubes are adapted for use with Copeland compressors using methyl chloride as a refrigerant.

Trupar Multiple Unit Will Operate 14 Five-Foot Boxes



Trupar three-quarter house power compressor unit

Model No. 1000 Trupar condensing unit manufactured by the Trupar Manufacturing Co., 140 Davis Ave., Dayton, Ohio, is illustrated here. This compressor is designed particularly for multiple installations, operates at a slow speed and is of the air cooled type. A double-V cog belt drive is used between the motor and the compressor. The compressor is fitted with a balanced fly wheel within which is an oversized fan. Another fan on the motor pulley increases the cooling effect on the condenser.

The two-cylinder machine here has an ice melting capacity of 1/2 ton per twenty-four hours and under average conditions will operate fourteen refrigerators of 5 cubic feet each.

The finned condenser on this unit is extra large, running the entire length and height of the unit. The base is constructed of heavy angle steel. The pres-

sure switch has a safety shut-off device which prevents accidental high pressure from damaging the machine.

The model No. 500 unit, which has only a single cylinder, provides an ice melting capacity of 1/4 ton for twenty-four hours and under average conditions will operate seven refrigerators of 5 cubic feet each. Both machines operate at 350 R. P. M.'s.

The larger machine is driven by a 1 1/2 horse power motor and the smaller machine by a 3/4 horse power motor.

DRINKING WATER FAUCETS

for Refrigerators - Water Coolers

Cordley & Hayes

1 Leonard St. New York City

Beichler Returns from Europe

E. G. Beichler, president of Frigidaire Corp., returned to New York, August 14, after visiting London, Paris and Berlin in the interests of Frigidaire business abroad.

The leading refrigerator manufacturers are buying

BOSLEY'S
"Ice Saver Gasket"

for it is the best uniform quality insulation

Write us

The D. W. Bosley Company
1901 Carroll Ave. Chicago, Ill.

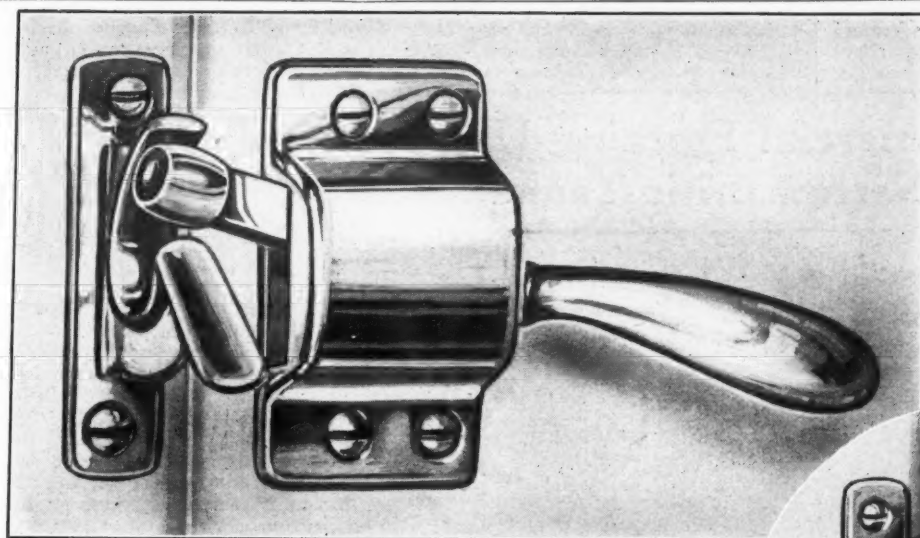
LIGONIER

Refrigerators

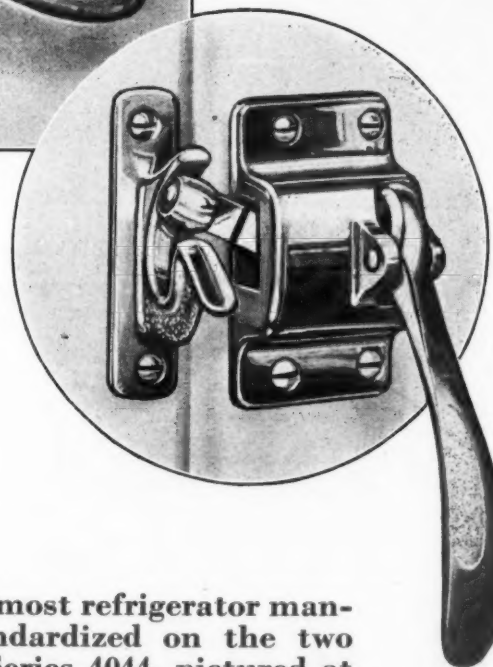
Give your Electrical REFRIGERATION Units a Chance to Prove their Quality!

A Complete Line of Commercial Refrigerators... Counters and Market Coolers.

LIGONIER REFRIGERATOR COMPANY
100 CAVIN ST.
LIGONIER-INDIANA.



5 Sizes in Each Model



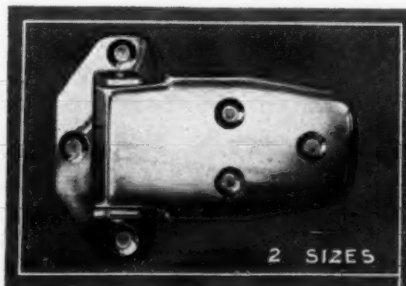
Positive . . .
Simple . . .
and Sturdy!

MANY of America's foremost refrigerator manufacturers have standardized on the two latches pictured above. Series 4044, pictured at the left, is the most simple automatic reversible latch ever devised. The patented spring and bolt action is absolutely positive and will last a lifetime. Series 4010, shown in the circle, is designed and built for commercial installations, and is an exclusive model with us. For sturdy, satisfactory service, this latch is without a peer! Both models are available in a wide range of sizes and finishes, including heavy nickel, genuine chromium plate, and any special finish desired.

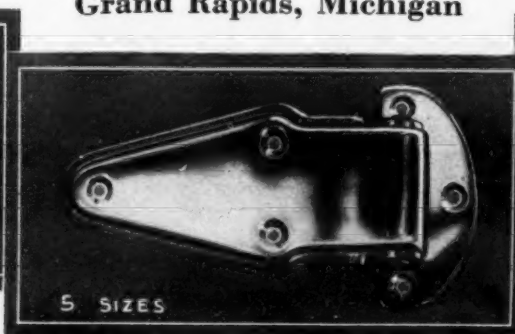
Samples and complete information will be gladly sent to manufacturers who realize the sales value of positive action, clean-cut design, and impeccable finish. Over 300 styles and sizes of latches and hinges await your choice!

GRAND RAPIDS BRASS CO.

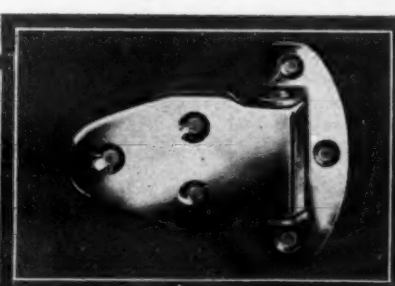
Grand Rapids, Michigan



2 SIZES



5 SIZES



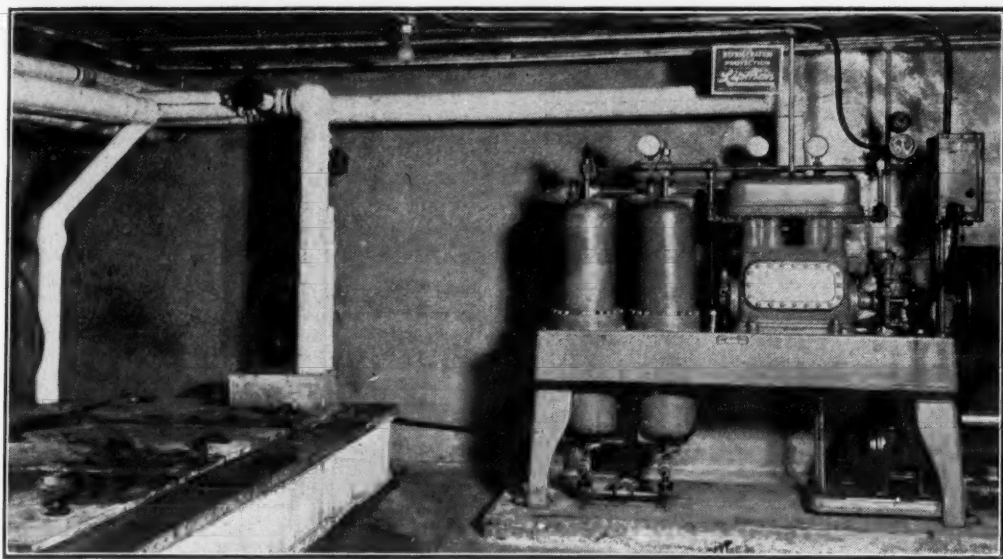
An essential adjunct to successful electric refrigeration

WIRFS PATENTED
AIRTITE
CUSHION
GASKET

conserves refrigeration

E. J. WIRFS ORGANIZATION, Inc.
135 S. 17th St., St. Louis, Mo.

Interesting Lipman Installations in Hospital and Ice Cream Plant



The job of the 5 H. P. Lipman machine shown at the left, above, installed in St. Patrick's Hospital, Missoula, Mont., is to handle a 1,000 pound ice maker, two storage rooms, each 7 ft. by 10 ft. by 12 ft., and five refrigerators. Expansion is through the ice maker, then through the cold storage rooms, and then back to the compressor.

In order to supply brine for cooling the service refrigerator in the main kitchen, and the refrigerators in the main dining room, the Sisters' dining room, the biological room, the third floor diet kitchen, and the fourth floor diet kitchen, the brine compartment in the 1,000 pound ice maker was made unusually large.

For circulating the brine through the various refrigerators, a ten gallon per minute pump directly connected to a 1 H. P. motor operating at 3540 R. P. M.'s is used. An average temperature of 36 degrees is maintained in these refrigerators.

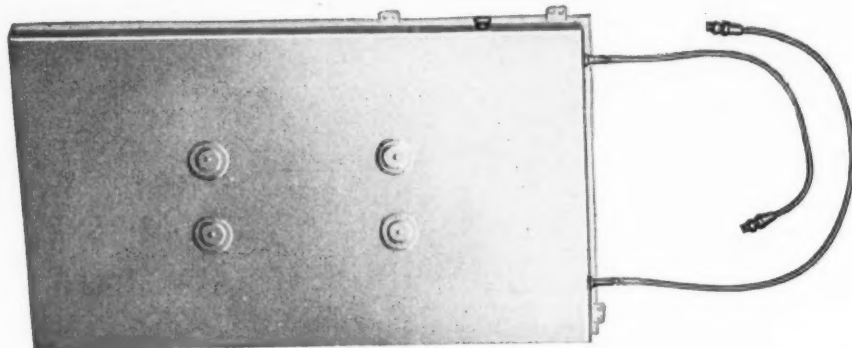
The installation on the right, above, shows two 10 H. P. Lipman ammonia machines furnishing refrigeration for the

Druggist Ice Cream Company, Memphis, Tenn. This is an instance of two machines on the job but performing different tasks. The machine on the left operates at a suction pressure of five pounds and is connected to two ice cream hardening rooms, each 8 ft. 0 in. by 8 ft. 6 in. by 8 ft. 3 in., and with an anteroom of equal size.

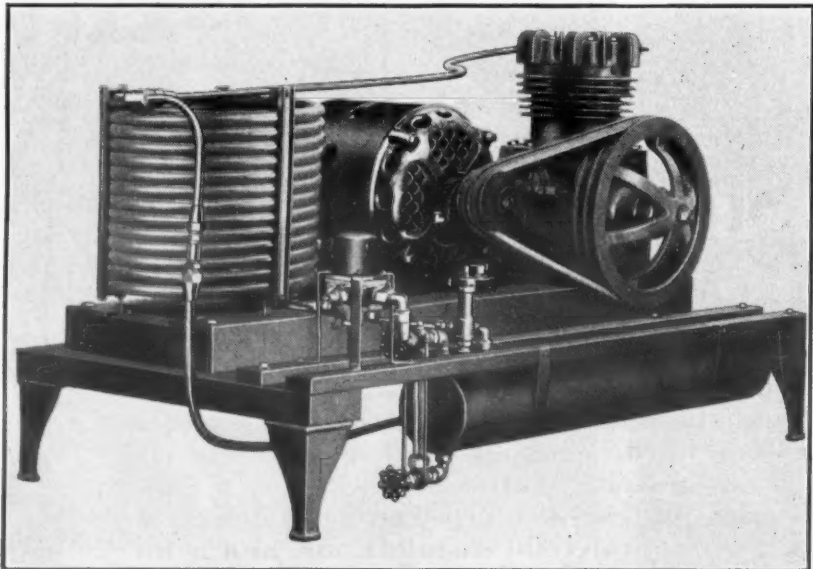
The ice cream hardening capacity is 1,000 gallons a day. The other machine operates at suction pressure of 15 pounds, and is connected to the ice cream freezer. The first machine is full automatic, the second is semi-automatic, and they are cross-connected so that either machine may operate on either load.

On account of the varying suction pressures and the comparatively small load on the machine after the direct expansion freezer is shut down, a single machine installation, though less expensive in first cost, would have been more costly to operate.

Absopure Commercial Freezing Unit is Series of Narrow Brine Tanks



Absopure No. 2136 Flat Tank Type Freezing Unit



Absopure Model I. M. W. Condensing Unit

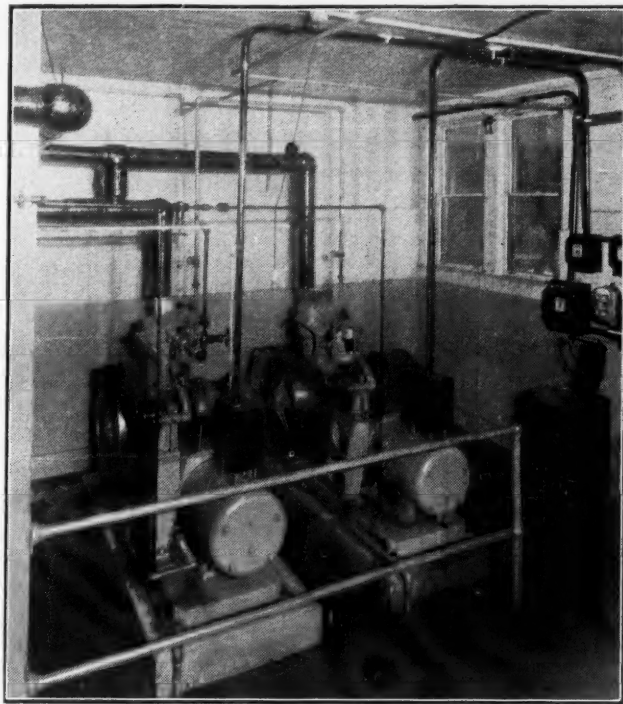
The Absopure model I. M. W. condensing unit shown in the accompanying illustration is designed for use in meat markets, grocery stores, and similar applications.

This unit has a twin-cylinder reciprocating compressor, a one horsepower motor, a double-pipe watercooled condenser, and a capacity on commercial installations approximately equalling the melting of 1,000 pounds of ice in twenty-four hours. This is sufficient refrigeration for a large percentage of the retail meat markets and groceries.

The Absopure commercial freezing unit used in meat coolers and other walk-in refrigerators is made up of a number of narrow brine tanks. These tanks are all 21 inches high and 2 inches wide. The

standard lengths are 36 inches, 50 inches, and 66 inches. The size of tank to be used is determined by the dimensions of the ice bunker, but the number of tanks required and used depends entirely on the amount of heat to be removed from the refrigerator. From four to eight tanks are usually required.

This type of freezing unit makes it possible to use standard equipment in practically all refrigerators. A small stock of each size of tanks allows the dealer to fill orders as soon as they are received. The Absopure flat tank freezing unit is said to combine the advantages of brine tank temperatures with sufficient freezing unit surface and a flexibility of freezing unit area.



LIPMAN LINE PERMITS INSTALLATION OF EXACT SIZE MACHINE NEEDED

Lipman full automatic electric refrigeration machines, products of the General Refrigeration Co., Beloit, Wis., are available in thirteen different models ranging in sizes from 1/2 horse power to 40 horse power.

The nine smaller models are full automatic and self contained, the largest of which is of 10 horse power. In these machines a patented sub-cylinder tends to prevent all oil pumping by carrying the oil level in the crank case above the stuffing box. By equipping the machines with both a high pressure cut-out and a high pressure relief valve, the danger from high pressures is minimized.

The automatic water valve on the Lipman machine feeds just the necessary amount of condensing water at all times, thus making for economical water consumption. Should the water be unknowingly shut off, thereby permitting the hot gases to build up pressure in the system, the Lipman automatically stops itself until conditions have righted themselves.

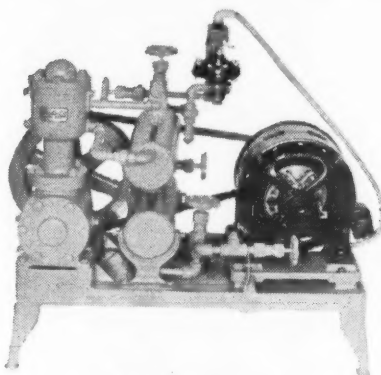
The 15, 20, 30 and 40 horsepower models have condensers mounted separately and are supplied with full automatic, semi-automatic, or manual control.

Particular attention is called by the manufacturers to the fact that the number of sizes is such that it permits the use of a unit giving exactly the required amount of refrigerating power for the job, rather than as is sometimes necessary, the use of a machine which is slightly too large or too small, perhaps, for the job.

DOLE PRESENTS THE SMALL AMMONIA UNIT

For installation in meat markets, floral shops, grocery stores, hospitals and similar places, the Dole Refrigerating Machine Co., 1209 W. Washington Blvd., Chicago, Ill., offers condensing units similar to the one pictured here in ice melting capacities from 250 to 3000 pounds.

These are ammonia machines with tem-



One of the Smaller Dole Ammonia Condensing Units

perature controls and the condensers of the submerged type. The reciprocating compressor is belt connected with motors in sizes from 1/4 to 2 horse power, depending on the size of the compressor. This company also supplies cooling units with either the direct or brine type, according to the needs of the particular installation.

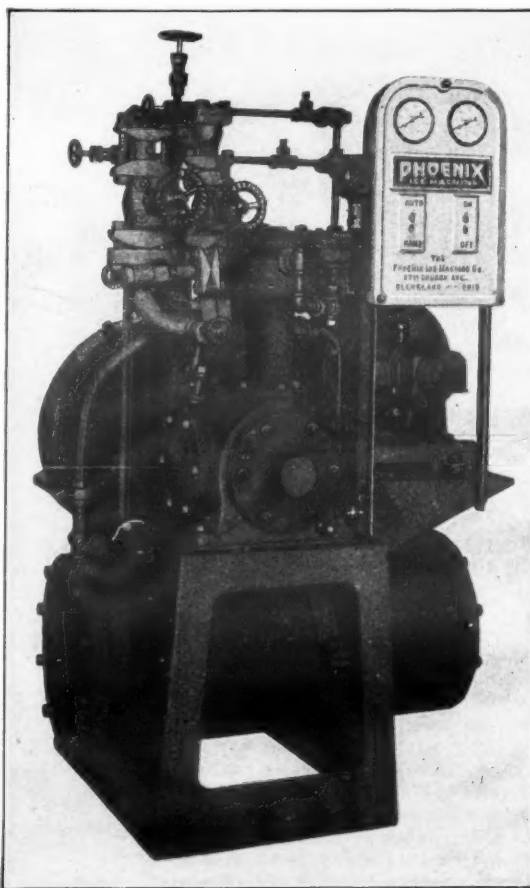
Phoenix Unit Designed for Either Manual or Automatic Control

Knowing that to many users of refrigeration, space occupied is an important factor, the Phoenix Ice Machine Co., Cleveland, Ohio, has developed a unit type machine with automatic control shown in the accompanying illustration. This machine is available in 1/2, 1 and 2-ton capacities.

The Phoenix automatic panel on this machine has ammonia gauges, a motor starter and control switches. These switches enable the owner to make his plant either full automatic or hand controlled. A thermostat, located in the cooler stops the compressor when the required temperature is reached, and as the temperature rises, again starts the compressor.

The combination high pressure cutout and water control valve is a safety feature which stops the compressor if the high pressure becomes abnormal. The water control valve is automatic so that it admits just the amount of cooling water necessary.

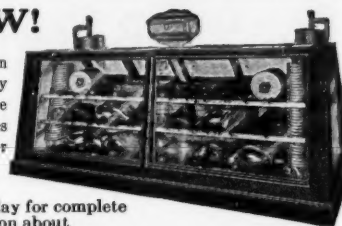
In addition to this comparatively small size machine, the Phoenix company also offers the larger types running as high as 30 and 40 tons. These machines, of course, are driven by a motor which is mounted separate from the compressor unit.



Phoenix Unit Type Machine with Automatic Control

NOW!

Here is an opportunity to assure bigger sales and a better profit.



Write today for complete information about

THESCO DISPLAY FIXTURES
The C. SCHMIDT COMPANY

John and Livingston Streets

THE HOME OF THESCO PRODUCTS

Cincinnati, Ohio Est. 1870 Inc. 1907

Specify ROME CONDENSERS



One Piece Construction

Rome Turney Radiator Co.
ROME, N. Y.

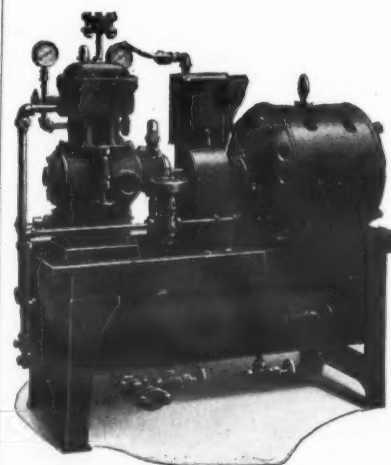
SUBSCRIBE NOW—Until September 12 the subscription rate to Electric Refrigeration News is only \$1.50 per year. After that date the rate will be increased to \$2.00 per year.

THE PRESIDENT HOTEL
ON THE BOARDWALK
ATLANTIC CITY - N.J.

SPLENDID LOCATION
Each room has Servidor,
Serving Pantry, Bath
with sea water. Possesses
own Swimming Pool and
Turkish Baths. Concerts
- Dancing - Golf - Horse-
back - Roller Chairs.
Come Now for Relaxa-
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F. L. Andrews
Manager

EVERLASTING FRICK REFRIGERATION



Frick Direct-drive Unit

A size for every commercial need, from 1/4 ton up. 40 years' Refrigerating experience built into every Frick machine. World-wide reputation and advertising; installations everywhere.

Distributors wanted.

Frick Company
REFRIGERATION MACHINERY SINCE 1888

LASSEN — TEMPERATURE — PRESSURE — CONTROLS

POSITIVE RANGE AND DIFFERENTIAL ADJUSTMENT
NON-DETERIORATING MERCURY TUBE SWITCH—MEET ALL REQUIREMENTS
GOODNOW & BLAKE MFG. CO. 3840 BEAVER STREET
DETROIT, MICH.

AUTOMATIC ELECTRIC CONTROLS NON-DETERIORATING MERCURY SWITCHES

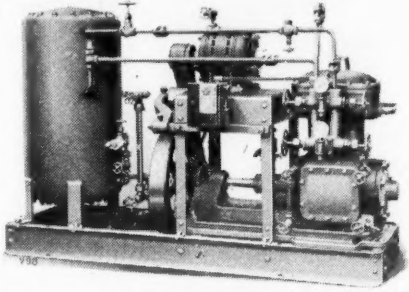
Simple — Dependable
ABSOLUTE
ELKHART



Accurate — Safe
CORPORATION
INDIANA

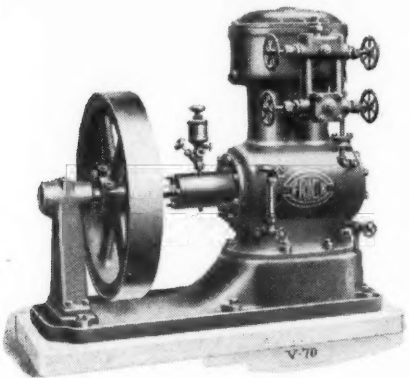
FRICK OFFERS MACHINES IN CAPACITIES RANGING FROM 1/2 TO 700 TONS

Frick refrigerating machines, manufactured by Frick Company, Inc., Waynesboro, Pa., are built in all types and sizes, from 1/2 ton to 700 tons in a single unit. For medium-sized installations, the belt-driven combined units or the enclosed type compressors are usually selected, the control being either automatic or by hand, as desired. Enclosed type machines are furnished for both ammonia and carbon dioxide.



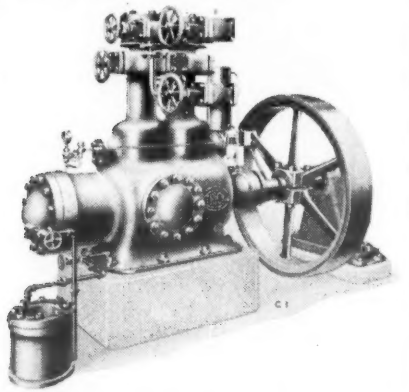
Two-ton Frick Belt-driven Combined Unit

Frick belt-driven combined machines have the motors overhead, out of reach of dirt and dampness, a ball-bearing belt tightener is provided. The condenser is the shell-and-tube type with removable heads, permitting easy cleaning of the straight water passages. These machines are built in three sizes, the compressors themselves having the same general design and features as the standard Frick enclosed type.



Frick Enclosed-type Ammonia Compressor

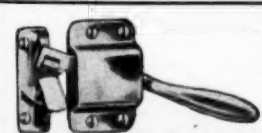
Features of the Frick enclosed ammonia compressor are its fully enclosing water jacket, over the safety cylinder heads, which are held down by springs instead of bolts; plate discharge valves and cushioned suction valves (entire valve cage threaded and screwed into piston); special piston rings to prevent oil pumping; drop forged shaft and rods; die-cast, renewable bearings; positive, automatic lubrication; double-length stuffing box, with oil seal; outboard bearing supporting flywheel and pull of belt; heavily ribbed baseplate; force-feed oiling on larger sizes; simple, full-size by-pass, with safety relief valve; large external suction scale trap; and range of sizes from 3" x 3" to 12" x 12"; for belt, steam, or direct motor drive.



Frick Carbon-dioxide Enclosed-type Compressor

Practically all these features are also incorporated in Frick carbon-dioxide enclosed compressors, and in addition the following: very long pistons, extending into crankcase, where a well-lubricated "crosshead" surface is provided, between the forked connecting-rod arms; double suction ports, permitting dual-effect compression, when desirable; roller thrust bearing, to prevent end pressure on shaft; three-pressure lubricating system; metallic packing, with cold expansion connections to stuffing box; and control valves employing a copper ring for making a tight joint.

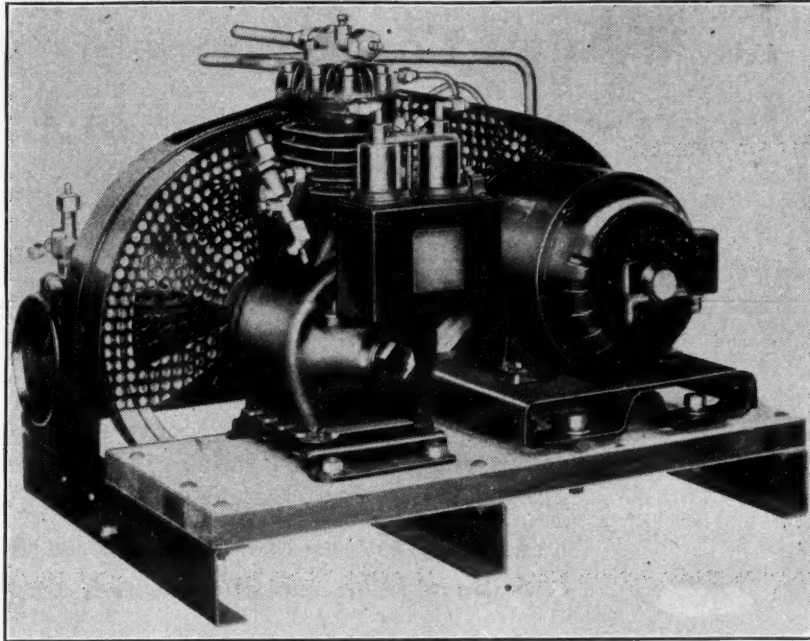
Frick equipment has back of it the company's 46 years' experience in refrigerating work, which covers commercial installations of all kinds—in markets, groceries, dairies, ice cream plants, hotels, restaurants, hospitals, office buildings, theatres, soda fountains, bakeries, chemical plants, cold storages, ice plants, marine work, etc. The company maintains branch offices and distributors all over the world.



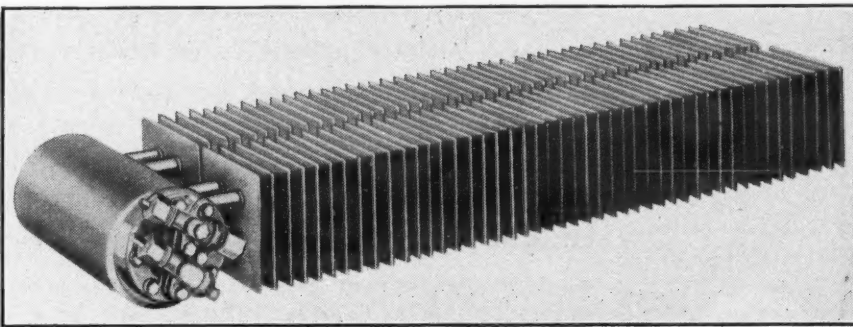
Distinctive Refrigeration Hardware

PATENTED TRIPLOCK
Winters & Crampton Mfg. Co., Grand Rapids, Mich.

Kelvinator Cooling and Condensing Units for Commercial Installations



Model WB, 2-cylinder, 1 1/2 horse power, Kelvinator unit



Kelvinator cross-fin cooling unit for commercial jobs

The Model WB 2-cylinder, vertical, reciprocating, single acting, condensing unit offered by Kelvinator Corp., is shown in the accompanying illustration. Sulphur dioxide is used as a refrigerant. The condenser is water-cooled and is arranged with a two-way service cutout valve.

The compressor operates at 350 r. p. m. The motor is one horsepower standard, or on 2 or 3-phase alternating current, 1 1/2 horsepower.

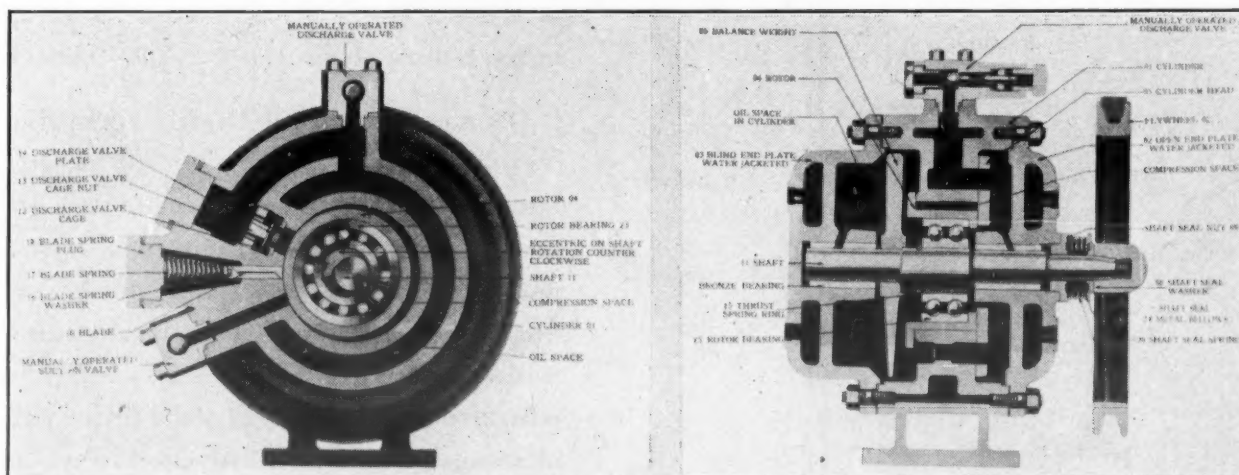
The control is of the high and low pressure type with the high pressure control connected to the liquid receiver. The water valve is automatically and electrically controlled so that it shuts off the water when the compressor stops.

The newest development by Kelvinator is the cross-fin cooling unit. Four different sizes are available and these may be applied in multiple or used individually. These units range in length from 41 to 72 inches.

One of the main features of this type of cooling unit is the small amount of space occupied by it and the large area of cooling surface which it provides. The great amount of space occupied by the ice bunker of the average refrigerator may be partially eliminated and used for storage purposes when the cross-fin unit is used. These units may be installed either by suspending from the top of the refrigerator by means of hooks which are threaded at one end, or they can be arranged on flanged pipes extended from one side of the bunker to the other.

With the use of this type of cooling unit, it is absolutely essential that the controller be so adjusted that the cooling unit will defrost during the idle periods of the condensing unit. With the control properly adjusted, the fins will defrost in each cycle, and as a result will provide maximum refrigerating efficiency.

Compact Designs Mark Machines Made by Stroh Products Co.



Cross-sectional views of Stroh rotary compressor

A cross sectional view and an end view of the Stroh rotary compressor manufactured by the Stroh Products Co., Detroit, are shown above. The section at the left is a phantom end view and that at the right is a phantom cross sectional view of the compressor.

This compressor has but three major moving parts all operating in a bath of oil. It is so designed that the only contact which occurs between the cylinder and the rotor is on the flange of the rotor and any wear at these two points tends

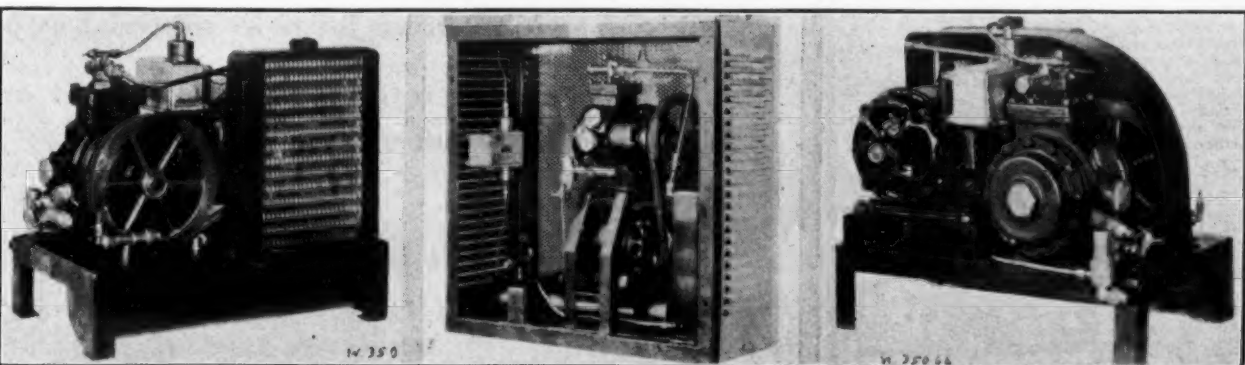
to perfect the seals between the rotor and the cylinder, constantly improving the overall efficiency of the compressor, it is claimed. All bearings are submerged and run constantly in a pressure oil bath.

At the extreme left and right of the illustration below are two views of the Stroh 1/3 horse power air cooled condensing unit for remote installations. This unit operates with either methyl chloride or sulphur dioxide as a refrigerant. The temperature control is the American Radiator Mercoid pressure type, easily

adjusted and on the water cooled unit, the control incorporates a high pressure cutout which stops the machine in case of water stoppage.

On the water cooled unit a water governor is operated by two bellows, one connected to the high pressure and the other to the low pressure.

The center view shows the Stroh 1/3 horse power air cooled machine for use with ice cream cabinets. This unit operates on the same principles as the one just described.



Left and right—Two views of the Stroh condensing unit
Center—Stroh replacement unit for ice cream cabinets

SELECT REFRIGERATORS FOR PERFORMANCE NOT ALONE FOR APPEARANCE

The modern market must be perfectly appointed and equipped for the prompt, efficient service demanded by the consumer of today, according to the C. Schmidt Co., Cincinnati, Ohio, manufacturers of Tesco refrigerator cars and coolers. The progressive merchant realizes that this demand, along with keen competition, high-priced food stuffs and ever-increasing overhead burden, make modern equipment more than ever essential to the profitable and successful conduct of the business dealing in perishables.

The selection of market equipment should be given careful attention. It is no longer purchased on appearance only. Performance is the first consideration. Equipment, to be a good investment, must improve service, cut operating costs, reduce food spoilage, give the greatest sale advantage in the least space, and promote a larger volume of business.

Frigidaire-Delco Light Men Attend Convention at Salt Lake City

More than 200 dealers and salesmen attended the three-day Frigidaire and Delco Light convention held at Salt Lake City, Utah, on August 10-12. George S. Jones, western regional manager for Frigidaire, was the principal speaker at the convention. Charles N. Malouf, local manager of both the Frigidaire and Delco Light organizations, was toastmaster at the banquet.

Frigidaire Dealers See New Models at Minneapolis

Approximately seventy dealers from Minnesota and Wisconsin attended a meeting August 20 at the offices of G. F. Schonek, Inc., Minneapolis, Minn., Frigidaire distributors. The meeting was called for the purpose of displaying the New Frigidaire and explaining its features to the dealers before it was placed before the public. The Schonek company is distributor for Minnesota and ten counties in Wisconsin.

Pacific Power & Light Sells 210 Units in Seven Months

Up to July 14 the Pacific Power and Light Co., Portland, Ore., had sold 168 General Electric and 42 Electro-Kold refrigerators in the territories served by them. A quota of 500 units was set for 1928. Four districts have equalled or exceeded their quotas.



PEERLESS FLOODED TYPE EVAPORATORS
For use on either Methyl Chloride or Sulphur Dioxide.

The PEERLESS one-piece, galvanized casting cooling unit provides the quick freezing advantage of the direct expansion unit with the hold-over advantage of the brine tank. The entire casting is cored, and ice trays are placed directly over the boiling refrigerant, giving an exceptionally short "freezing time."

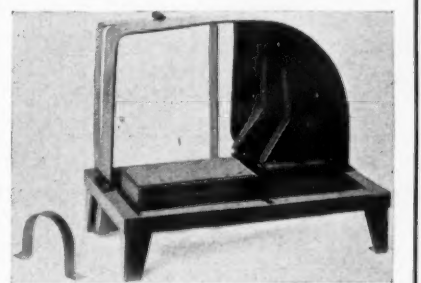
The entire surface of the unit is "cooling surface," available in maintaining correct refrigeration temperatures at a minimum power cost. Shut-off valves are "hinged" to the float valve assembly, repairs and adjustments are made quickly with no trouble. A large capacity strainer is incorporated between the liquid shut-off valve and the "needle" valve. This can be removed and cleaned without loss of refrigerant. Manufactured in sizes and cube capacities to meet every condition.

PEERLESS ICE MACHINE CO. 515 W. 35th St. CHICAGO, ILL.

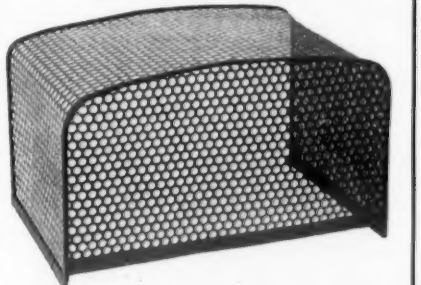


STAMPINGS for Electric Refrigeration Manufacturers— Distributors— Dealers—

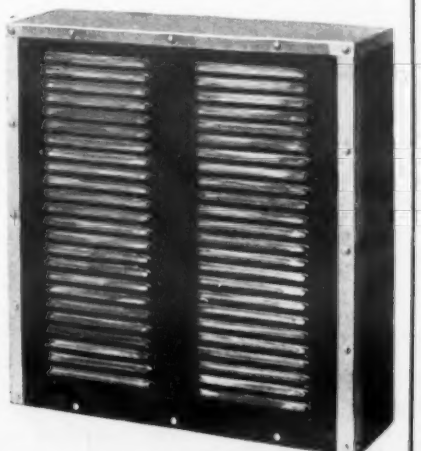
Compressor Supporting Base
Electrically arc-welded joints—angle iron base—durably constructed.



Perforated Metal Guard
for Covering Compressors
Made of auto body steel—enameled. Unusually strong construction.



Louvered Panel Enclosure
for Compressors
Frame 3/16 in. x 1 1/2 in. x 1 1/2 in. angle iron—electrically arc-welded joints. Covered with enameled steel louvered panels—monel trim.



Let us know your requirements and specifications for parts similar to illustrated equipment. We can vary the size and design to suit your individual need. Our prices will surprise you.

Motors Metal Mfg. Co.
DETROIT, MICH.

Index to Volume II

Alphabetic List of Subjects Treated in Previous Issues

Note: In compiling an index of the twenty-six issues of Volume III which includes those from September 14, 1927 (Serial No. 25) to the present issue (Serial No. 50) two main divisions were made. First, the subjects of principal articles, editorials and illustrations were listed to enable readers to locate discussions of a particular subject. Second, names of companies and individuals prominently mentioned in the news columns were listed.

Owing to lack of space in this issue only the first division (the *subject* index) is published. The second division (the *name* index) will appear later.

A

- Advertising helps Milwaukee dealers. 10-12-27—p. 6.
- cost \$10.11 per unit, average. 11-23-27—p. 4.
- budget of ice industry for 1928. 11-23-27—p. 10.
- newspaper, for N. E. L. A. campaign. 2-1-28—p. 6.
- of electrical appliances in 1927. 2-29-28—p. 12.
- is promoter of prosperity. 5-9-28—p. 8.
- twelve reasons for. 5-23-28—p. 12.
- awards for central stations. 7-20-28—p. 2.
- Agriculture, Dept. of, exhibits graded meat (photo). 2-1-28—p. 10.
- Agricultural train exhibits electrical labor-savers (photo). 6-6-28—p. 10.
- Air conditioning plants offer desirable load for central stations. 8-15-28—p. 16.
- Air coolers for homes wanted. 7-4-28—p. 8.
- Aluminum, uses of, in refrigeration field. 4-11-28—p. 10.
- Apartment house, sales to, in New York. 9-14-27—p. 8.
- Appliance store, refrigeration logical line for. 2-1-28—p. 16.
- Automobile dealers see opportunity in electric refrigeration. 5-23-28—p. 13.

B

- Bakery, electric refrigeration provides exact temperatures for. 6-20-28—p. 10.
- circulating water pump and special control in (photo). 8-15-28—p. 13.
- Balsam wool, manufacture and application of. 4-11-28—p. 10.
- Beverage coolers, label law helps. 9-14-27—p. 1.
- in Cincinnati restaurant (photo). 1-18-28—p. 1.
- announced by Electro-Kold (photo). 3-28-28—p. 20.
- Bottle cabinets (see beverage coolers).
- Boxing, gluing and kiln drying course in. 2-29-28—p. 13.
- Houses demanded by building managers. 4-25-28—p. 12.
- Building supply house, opportunities for, in electric refrigeration. 7-18-28—p. 9.
- Buyers of refrigerators very discriminating. 9-14-27—p. 8.

C

- Cabinets, electric, cost of, discussed by ice cream maker. 9-28-27—p. 3.
- Benjamin Crystel. 3-28-28—p. 21.
- construction and designs of various manufacturers. 4-11-28—p. 13-14.
- design, importance of. 4-11-28—p. 14.
- finishing tools for. 1-4-28—p. 12.
- ice cream in world's largest ball park (photo). 3-14-28—p. 12.
- important features in design of household type of. 6-20-28—p. 21.
- manufacturing, war research applied to. 12-7-27—p. 10.
- Rhinelander miniature, for remote installation. 5-9-28—p. 12.
- special designs of, at Dairy Industry Exposition (photo). 11-9-27—p. 4.
- seamless construction of. 1-4-27—p. 12.
- Seeger, designed for ice or electric. 3-28-28—p. 23.
- three essentials cited for good construction of. 5-9-28—p. 12.
- Cafeteria, visit to shows importance of good refrigeration. 10-12-27—p. 3.
- California, label law of. 9-14-27—p. 1.
- Camp Refrigeration (photo). 9-14-27—p. 5.
- Carbon dioxide known as refrigerant since 1845. 5-23-28—p. 16.
- Carbon dioxide ice, applications of. 12-21-27—p. 5.
- building plant to make. 2-15-28—p. 5.
- Central refrigeration plant for commercial users. 9-14-27—p. 8.
- Central stations—
- advertising awards for. 7-18-28—p. 2.
- advertising plan should be effective, says Richardson. 2-29-28—p. 6.
- advertising plan ready for use. 3-14-28—p. 1.
- air cooling plant offers desirable load for. 8-15-28—p. 16.
- display using kiddie appeal (photo). 10-26-27—p. 6.
- executives see electric refrigeration as load builder. 6-6-28—p. 1.
- earnings increase. 1-18-28—p. 8.
- following N. E. L. A. plan. 12-7-27—p. 11.
- getting local interests behind selling plan for. 3-14-28—p. 6.
- Georgia Power sets goal for spring drive. 5-9-28—p. 1.
- have right to use accepted merchandising methods. 6-20-28—p. 1.
- how San Antonio helps appliance men. 11-23-27—p. 10.
- increasing load of, by salesmen's compensation. 9-14-27—p. 3.
- marketing problems of. 6-20-28—p. 1.
- must fight for share of consumers dollar. 6-20-28—p. 1.
- men say: "push sales and give service." 9-14-27—p. 8.
- must try out new ideas. 2-1-28—p. 14.
- New York leads in electricity produced by. 5-9-28—p. 1.
- plan for selling the idea of electric refrigeration. 2-1-28—p. 3.
- refrigerator selling campaign endorsed by N. E. L. A. 2-1-28—p. 1.
- refrigerator sales contest of Nebraska Power Co. 2-1-28—p. 22.
- right to shut off power questioned. 2-15-28—p. 4.
- selling the idea of electric refrigeration. 3-14-28—p. 6.
- "selling the idea" plan making good. 5-23-28—p. 13.
- should change appeal. 6-20-28—p. 1.
- should push refrigeration now. 6-20-28—p. 1.
- Central station, men, views of:
 - Brown, R. I. 1-4-28—p. 5.
 - Derge, J. F. 1-4-28—p. 5.
 - Greenwood, C. E. 1-4-28—p. 5.
 - Lorch, P. 1-4-28—p. 5.
 - Pratt, L. W. 1-4-28—p. 5.
 - Richardson, G. B. 1-4-28—p. 3.
 - Pemberton, F. D. 1-4-28—p. 5.
- men comment on N. E. L. A. advertising plan:
 - Bailey, L. L. 3-14-28—p. 5.
 - Clements, W. E. 1-4-28—p. 4.
 - Colins, A. B. 3-14-28—p. 4.
 - Collins, A. B. 3-14-28—p. 4.
 - Davidson, J. E. 3-14-28—p. 5.
 - Deveraux, J. W. 3-14-28—p. 3.
 - Dunn, C. L. 3-14-28—p. 5.
 - Eakin, J. M. 3-14-28—p. 5.
 - Fast, B. M. 3-28-28—p. 6.
 - Hogue, O. R. 3-28-28—p. 6.
 - Nichols, E. G. 3-14-28—p. 3.
 - Pemberton, F. D. 3-14-28—p. 4.
 - Richardson, G. B. 3-28-28—p. 6.
 - Schmidt, E. F. 3-14-28—p. 3.
 - Stephens, R. T. 3-28-28—p. 6.
 - Taber, S. 3-14-28—p. 4.
 - Tillman, R. H. 3-14-28—p. 4.
 - Young, H. E. 3-14-28—p. 4.
- Central stations, electric refrigeration activities of.
 - Abington & Rockland Light & Power Co. increases advertising. 5-23-28—p. 6.
 - Alabama Power Co., refrigerator campaign of. 8-1-28—p. 5.
 - Alton Light & Power Co. plans to double refrigerator sales. 5-23-28—p. 20.
 - Analysis shows high yield of electric refrigeration. 8-15-28—p. 4.
 - Associated Gas & Electric Co., refrigeration sales quota of. 2-29-28—p. 1.
 - Associated Gas & Electric Co., home service of. 5-23-28—p. 19.
 - Associated Gas & Electric Co. sets refrigerator sales quota. 7-18-28—p. 12.
 - Brooklyn Edison Co., refrigeration show of. (photo) 6-20-28—p. 11.
 - Carolina Lt. & Pr. Co., Kelvinator sales of. 7-18-28—p. 2.
 - Central Arizona Lt. & Pr. Co., contest of bring results. 6-6-28—p. 8.
 - Central Illinois Public Service Co., refrigerator sales of. 7-4-27—p. 14.
 - Central Hudson Gas & Electric Co., refrigerator quota of. 5-23-28—p. 8.
 - Central Maine Power Co., contest of. 5-23-28—p. 14.
 - Central Maine Power Co. opens store. 6-6-28—p. 25.
 - Central Power Co., refrigerator quota of. 5-23-28—p. 22.
 - Central Power Co. to double refrigerator sales. 6-6-28—p. 21.
 - Cities Service Co., refrigerator sales of. 8-15-28—p. 16.
 - Columbus Elec. & Pr. Co., banquet of. 5-23-28—p. 21.
 - Connecticut Lt. & Pr. Co. sells 615 units. 5-23-28—p. 19.
 - Connecticut Lt. & Pr. Co., refrigerator sales of. 6-6-28—p. 14.
 - Cumberland County Pr. & Lt. Co. to increase refrigerator sales. 5-23-28—p. 21.
 - Dakota Power Co. using N. E. L. A. selling plan. 5-23-28—p. 3.
 - Danbury & Bethel Gas & Light Co., refrigerator sales of. 10-26-27—p. 6.
 - Doherty & Co., 1927 sales of. 2-29-28—p. 1.
 - Duke Power Co., Kelvinator campaign of. 8-15-28—p. 15.
 - Fort Smith Lt. & Trac. Co. to sell G. E. and Kelvinator. 5-23-28—p. 14.
 - Georgia Power Co. sets prizes and quota in drive. 9-14-27—p. 1.
 - Georgia Power sponsors "neglected kitchen week." 2-29-28—p. 1.
 - Georgia Power Co., refrigerator sales drive of. 5-23-28—p. 7.
 - Georgia Power Co., refrigeration campaign of. 7-18-28—p. 1 and 6.
 - Gulf Power Co. plans refrigerator campaign. 5-23-28—p. 3.
 - Gulf Power Co., G. E. sales of. 8-15-28—p. 15.
 - Gulf Power Co. starts G. E. campaign. 6-6-28—p. 25.
 - Gulf States Utilities Co., cooking school of. 5-23-28—p. 19.
 - Hartford Electric Light Co., refrigerator sales quota of. 6-6-28—p. 8.
 - Home Light & Power Co. to sell refrigerators. 5-23-28—p. 20.
 - Home Lt. & Pr. Co. opens display room. 8-1-28—p. 6.
 - Hoosier Public Utility Co. expects refrigerator sales growth. 5-23-28—p. 14.
 - Iowa-Nebraska Lt. & Pr. Co. to co-operate with dealers. 5-23-28—p. 6.
 - Kentucky Utilities Co. opens store. 6-6-28—p. 8.
 - Michigan Electric Power Co., show of. 6-28—p. 21.
 - Middle West Utilities Co., refrigerator sales of. 6-6-28—p. 21.
 - Missouri General Utilities to sell G. E. 5-23-28—p. 10.
 - National Electric Power Co., refrigerator sales of. 6-20-28—p. 4.
 - Nebraska Pr. Co., refrigerator sales quota of. 5-23-28—p. 18.
 - New York Edison Co., refrigeration show of. 1-18-28—p. 6.
 - New York Edison Co., display of. (photo) 8-1-28—p. 2.
 - North American Lt. & Pr. Co. to sell Kelvinator. 5-23-28—p. 22.
 - North American Lt. & Pr. Co., refrigerator sales of. 8-15-28—p. 15.
 - North American Lt. & Pr. Co. offers prizes. 6-20-28—p. 6.
 - Northern Indiana Pr. & Lt. Co., refrigeration show of. 5-23-28—p. 10.
 - Northern Ohio Pr. Co., merger of. 5-23-28—p. 3.
 - Ohio Public Service Co., contest of. 5-23-28—p. 1.
 - Ohio Public Service Co. making spring drive. 5-23-28—p. 10.
 - Ohio Public Service Co., refrigerator sales of. 6-20-28—p. 10.
 - Ohio Public Service Co., refrigerator sales of. 7-18-28—p. 4.
 - Oklahoma Gas & Elec. Co. offers milk cooling service to farmers. 7-18-28—p. 15.
 - Pacific Power & Lighting Co., refrigerator sales of. 6-20-28—p. 6.
 - Pacific Gas & Electric Co., display of (photo). 2-29-28—p. 7.
 - Penn-Ohio Light Co. sets refrigerator quota for 1928. 5-23-28—p. 13.

Local News Correspondents and Subscription Representatives Wanted in Every Community

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Thus the News has been its own salesman. The returns have been continuous month by month. In fact, subscriptions have been received about as rapidly as they could be taken care of properly.

This natural method of building circulation has had its advantages. Those who enrolled as subscribers did so because they were quick to see the value of the paper---no selling effort was necessary to convince them of its merit. We believe, therefore, that the present 6,000 subscribers represent the most active section of the industry.

Numerous letters are received from subscribers, however, indicating that a considerable number of individuals are still depending upon borrowed copies of the paper. New subscribers frequently indicate their disappointment in not having had an opportunity to become acquainted with the News earlier. Furthermore, the industry is constantly growing.

We believe that the time has arrived for a careful analysis of the field of service with a view to securing an enrollment which may rightfully be said to include "every worthwhile company and individual in the electric refrigeration business." A study of the geographical distribution shows that in many localities there is, as yet, an inadequate number of subscribers to be truly representative.

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Those interested are invited to write for full information without delay.

ELECTRIC REFRIGERATION NEWS
554 MACCABEES BLDG. DETROIT, MICH.

Index to Vol. II (Continued)

(See explanatory note at top of page 14)

- Old timers and newcomers. 2-29-28—p. 8.
—Five thousand subscribers. 2-29-28—p. 8.
—Electrical influence. 3-14-28—p. 8.
—Changed conditions. 5-23-28—p. 12.
—Complete the association. 7-4-28—p. 8.
—Business is good. 8-15-28—p. 8.
—Faith in the future. 8-15-28—p. 8.
- Electrical industry faced with selling job. 10-12-27—p. 8.
- Electric refrigeration directory, manufacturers of electric refrigerators. 10-12-27—p. 13.
—manufacturers of electric refrigerator cabinets. 10-12-27—p. 14.
—manufacturers of parts, accessories, materials and chemicals. 10-12-27—p. 15.
—catalogue and directory for 1928. 1-4-28—p. 1.
—manufacturers of machines, cabinets, materials and parts. 1-4-28—p. 17-24.
—changes. 2-1-28—p. 24.
—manufacturers of machines, cabinets, materials and parts with executive personnel. 3-28-28—p. 28-31.
—classified, refrigeration systems, apparatus, materials, parts, accessories, service and related merchandise. 6-6-28—p. 22.
- Electric refrigeration patents. 1-4-28—p. 28.
—supplementary list of. 1-18-28—p. 8.
- Electric refrigeration specifications, preliminary tabulation of. 10-12-27—p. 10.
—revised tabulation of. 11-9-27—p. 10-11.
—machine specifications. 4-25-28—p. 11.
—machine specifications, additions to. 5-9-28—p. 16.
- Electric refrigerator works 3,660 hours each year. 5-9-28—p. 7.
- Electricity, use of, shows prosperity. 2-15-28—p. 12.
- Enameling course to be given by Ferro Co. 1-18-28—p. 4.
—refrigerators. 4-11-28—p. 5.
—improvements in methods of. 6-20-28—p. 16.
—plant methods, modern, result in high production. 8-1-28—p. 14.
- Engineering comes before business. 1-4-28—p. 30.
- Engineers, formerly handicapped by lack of information. 10-12-27—p. 6.
—directory of. 1-4-28—p. 29.
- Engineer, unethical use of title should be curbed. 7-18-28—p. 8.
- Estimating, commercial jobs. 10-12-27—p. 11.
- Exhibits at N. E. L. A. Convention, Atlantic City.
—Bohn. 6-6-28—p. 3A.
—Copeland. 6-6-28—p. 2A.
—Electrical Testing Laboratories. 6-6-28—p. 3.
—Frigidaire. 6-6-28—p. 3A.
—General Electric. 6-6-28—p. 4.
—International Nickel. 6-6-28—p. 2.
—Iroquois. 6-6-28—p. 6.
—Kelvinator. 6-6-28—p. 2A.
—Leonard. 6-6-28—p. 2.
—McCord. 6-6-28—p. 3A.
—Savage. 6-6-28—p. 6.
—Savory. 6-6-28—p. 12-21-27—p. 9.
—Seeger. 6-6-28—p. 3A.
—Servel. 6-6-28—p. 2A.
—Superior Iceless. 6-6-28—p. 6.
—Wagner. 6-6-28—p. 3.
—Welsbach. 6-6-28—p. 2A.
- Exhibits of Brooklyn Edison Co.
—Copeland. 6-20-28—p. 11.
—Copeland. 7-4-28—p. 12.
—General Electric. 6-20-28—p. 11.
—Kelvinator. 6-20-28—p. 11.
—Lamson. 6-20-28—p. 11.
—Iroquois. 6-20-28—p. 11.
—Servel. 6-20-28—p. 11.
—Welsbach. 6-20-28—p. 11.
- Exhibits, electric refrigeration.
—Allison, at Roanoke, Va. 5-23-28—p. 16.
—Climax, at Dairy Exposition. 11-9-27—p. 1.
—Copeland, at Baltimore. 12-21-27—p. 7.
—Copeland, at Milwaukee. 11-9-27—p. 9.
—Copeland, at San Francisco. 6-20-28—p. 9.
—Ebing, at Columbus, O. 2-15-28—p. 8.
—Electro-Kold at Interstate Fair. 9-28-27—p. 5.
—Frick, at San Francisco. 1-4-28—p. 32.
—Frigidaire, at Columbus, Ga. 2-15-28—p. 1.
—Frigidaire, at Dublin. 3-28-28—p. 8.
—Frigidaire, at Milwaukee. 11-23-27—p. 2.
—Frigidaire, at Minneapolis. 7-18-28—p. 14.
—Frigidaire, at Tuscaloosa, Ala. 5-9-28—p. 13.
—General Electric, at Detroit Builders Show. 3-14-28—p. 8.
—General Electric, at Knoxville, Tenn. 2-1-28—p. 21.
—General Electric, at Milwaukee Home Show. 5-9-28—p. 15.
—General Electric, at N. Y. Exposition. 11-23-27—p. 4.
—General Electric, at Omaha. 11-9-27—p. 3.
—General Electric, at Phoenix, Ariz. 5-23-28—p. 12.
—General Electric, at Pittsburgh. 12-7-27—p. 9.
—General Electric, at St. Joseph, Mo. 6-6-28—p. 21.
—General Electric, at Toledo, O. 2-1-28—p. 12.
—Kelvinator, at Chattanooga, Tenn. 5-23-28—p. 18.
—Kelvinator, at Dairy Exposition. 11-9-27—p. 3.
—Kelvinator, at Detroit Builders Show. 3-14-28—p. 8.
—Kelvinator, at Greenville, S. C. 5-23-28—p. 18.
—Kelvinator, at Milton, Pa. 6-20-28—p. 17.
—Kelvinator, at Milwaukee Home Show. 5-9-28—p. 15.
—Lamson, at Dairy Exposition. 11-9-27—p. 1.
—Phoenix, at Live Stock show. 1-18-28—p. 4.
—Servel, at Evansville, Ind. 8-1-28—p. 14.
—Servel, in Earl Carroll's Vanities. 3-28-28—p. 1.
—Welsbach, at Plainfield, N. J. 7-18-28—p. 5.
—York, by California company. 7-18-28—p. 15.
—Zerozone, at Pittsburgh. 2-1-28—p. 24.
—Zerozone, at Ft. Smith, Ark. 7-4-28—p. 14.
- Export packing, good points of. 6-6-28—p. 19.
- Export development, Consular offices prepared to assist. 1-18-28—p. 1.
- Exporters' problem is now one of getting orders. 2-15-28—p. 5.
- Exports, Dept. of Commerce, reports of:
—month of June. 9-14-27—p. 8.
—month of July. 10-12-27—p. 6.
—month of Aug. 10-26-27—p. 6.
—month of Sept. 12-7-27—p. 4.
—month of Oct. 1-4-28—p. 9.
—month of Nov. 2-1-28—p. 15.
—month of Dec. 2-29-28—p. 4.
—month of Jan. 3-14-28—p. 15.
—month of Feb. 3-28-28—p. 27.
—month of Mar. 5-9-28—p. 16.
—month of Apr. 6-6-28—p. 26.
—month of May. 7-4-28—p. 8.
—month of June. 8-15-28—p. 14.
- Farm electrification, (see rural electrification).
- Financial reports of Kelvinator Corp. 9-14-28—p. 1; 11-9-27—p. 9; 4-25-28—p. 1; 8-1-28—p. 2.
- Servel, Inc. 11-23-27—p. 5; 8-1-28—p. 2.
—Copeland. 6-20-28—p. 14; 7-20-28—p. 1; 8-1-28—p. 2.
—Frigidaire. 8-1-28—p. 2.
- Fish, freezing of to avoid market flood. 11-23-27—p. 12.
- Floors, parade, Kelvinator, at Phoenix, Ariz. 10-26-27—p. 1.
—Kelvinator, at Greenville, S. C. 7-4-28—p. 16.
—Servel, at Toronto, Can. 8-15-28—p. 14.
- Florist eliminates spoilage by refrigeration. 4-25-28—p. 10.
—praise electric refrigeration. 7-4-28—p. 15.
- Food protection studied by U. S. 10-26-28—p. 1.
—waste due to lack of refrigeration. 6-20-28—p. 1.
—preservation of, by refrigeration. 8-1-28—p. 15.
- retailing, how to make more money. 3-28-28—p. 32.
- Food stores offer market for refrigeration. 2-29-28—p. 1.
- Food store to sell refrigerators. 10-12-27—p. 12.
- Fountain, soda, Red Cross in store (photo). 3-14-28—p. 10.
—electric refrigeration for. 3-14-28—p. 11.
—of American Soda Fountain Co. for electric unit (photo). 3-14-28—p. 12.
—of Schmidt Co. for sandwich shop (photo). 3-14-28—p. 13.
- Fountainette widens field for electric refrigeration. 3-14-28—p. 9.
- Foreign trade opportunities for. 3-28-28—p. 32; 6-6-28—p. 10; 8-1-28—p. 12; 8-15-28—p. 14.
- Furniture store, refrigeration is best future bet for. 12-21-27—p. 1.
—Christmas display in (photo). 12-21-27—p. 1.
—refrigerator margins inadequate for. 12-21-27—p. 2.
- Gaskets refrigerator to be made by Jarow Products. 1-4-28—p. 21.
—selection of material for Wirfs. 3-28-28—p. 22.
- Gaskets, tests of, by Gibson and Haskelite companies. 5-23-28—p. 18.
- Gluing course to be given by U. S. Laboratory. 2-29-28—p. 13.
- Hardware store, refrigeration a life saver for. 12-7-27—p. 1.
—experience proves refrigeration profitable for. 12-7-27—p. 1.
- Household refrigeration, progress and future of. 5-9-28—p. 14.
—Bureau of Economics lists references on. 8-15-28—p. 7.
- House cooling to come soon. 8-1-28—p. 7.
- Ice cream industry, statistics for. 11-9-27—p. 3.
—dealers attracted by new store equipment. 11-9-27—p. 4.
—makers realize value of good refrigeration. 11-9-27—p. 4.
—report of Simplified Practice Committee on cans for. 2-15-28—p. 5.
—how industry started. 3-28-28—p. 7.
—objects to encouragement of home made. 4-25-28—p. 8.
—standard can sizes recommended for. 7-18-28—p. 4.
—bootleggers, discovered. 8-15-28—p. 7.
—how to make. 3-14-28—p. 1.
—new method of making devised by Sparklets, Inc. 6-6-28—p. 7.
- Ice cream cooler, self contained, manufactured by Savage. 3-28-28—p. 20.
- Ice cream, shipping jackets for. 3-28-28—p. 21.
- Ice cubes, producer tells his experience in selling of. 2-1-28—p. 14.
—never failing appeal of (photo). 2-15-28—p. 1.
—made enroute with combination of automobile and Copeland unit (photo). 3-28-28—p. 16.
- Ice industry hopes to stop ice cube thunder of electric salesmen. 9-14-27—p. 8.
—electric competition is boon to. 10-12-27—p. 7.
—advertising plans outlined. 10-26-27—p. 2.
—to send \$300,000 for advertising. 11-23-27—p. 10.
—New York meeting of. 12-7-27—p. 11.
—will change in next ten years. 1-18-28—p. 7.
—heavy sales of, confined to 4 months. 2-1-28—p. 14.
—forced to adopt better merchandising methods. 6-6-28—p. 9.
—standard cake sizes for. 8-1-28—p. 1.
- Ice company to pay extra dividend. 1-18-28—p. 7.
—shows electric refrigerators. 12-7-27—p. 4.
—shows profit in December. 2-29-28—p. 12.
- Industry, electric refrigeration, has adopted correct name for service rendered. 9-28-27—p. 1.
—needs association of manufacturers. 10-12-27—p. 3.
—man power needs organization. 12-21-27—p. 3.
—information (editorial). 5-9-28—p. 8.
- Industrial prosperity is vital to manufacturer. 9-28-27—p. 1.
- Installation pays cost in meat house in one year. 12-7-27—p. 4.
—apartment, three main types of. 12-7-27—p. 8.
- Installation, photos of, Reolite. 1-18-28—p. 1.
—Schmidt Co. 1-18-28—p. 4; 2-1-28—p. 1.
—Copeland. 1-18-28—p. 4; 1-18-28—p. 7; 2-1-28—p. 23; 3-28-28—p. 16; 4-25-28—p. 8; 8-15-28—p. 12; 8-15-28—p. 13.
—Sherer-Gillet. 2-1-28—p. 10.
—Oreole. 2-1-28—p. 16; 2-1-28—p. 22; 2-29-28—p. 12.
—Lipman. 2-1-28—p. 20; 6-6-28—p. 16.
—Glockler. 2-28-28—p. 1.
—Friedrich. 2-29-28—p. 2.
- Installation, photos of, Oreole. 2-29-28—p. 9.
—Banta. 2-29-28—p. 9.
—Bishop & Babcock. 3-14-28—p. 10.
—Savage. 3-14-28—p. 12.
—McCray. 3-28-28—p. 26.
—Seeger. 3-28-28—p. 3; 6-6-28—p. 16.
—Frick. 5-9-28—p. 2.
—Climax. 5-9-28—p. 8.
—Kelvinator. 5-9-28—p. 10; 8-1-28—p. 16.
—Weber. 5-9-28—p. 10.
—Hussman. 5-9-28—p. 10.
—Rex. 6-6-28—p. 16.
—Vilter. 6-6-28—p. 16.
—Brunswick-Kroeschell. 6-20-28—p. 12.
—Norge. 8-15-28—p. 1.
- Installment buying, refunding money on repossessed merchandise. 11-9-27—p. 9.
—declared sound. 11-23-27—p. 3.
—good policy for refrigeration sales. 12-7-27—p. 6.
—50 per cent of machines sold by. 2-1-28—p. 20.
—sound policy for. 2-15-28—p. 6.
—terms should not be too extended for. 4-11-28—p. 4.
- Instruction card connects buyer with factory. 5-9-28—p. 14.
- Insulation, importance in domestic cabinets. 10-12-27—p. 5.
—in Copeland models. 2-15-28—p. 12.
—discussed by cabinet makers. 2-15-28—p. 1.
—Balsam-wood, manufacture and applications to. 4-11-28—p. 10.
—methods of mounting in refrigerator. 4-11-28—p. 11.
—application of, to domestic refrigerator. 7-4-28—p. 13.
—tests show importance of. 8-1-28—p. 13.
—methods for refrigerated cars. 8-15-28—p. 8.
- Lacquer finish, how it should be used. 12-7-27—p. 11.
—application process of Servel. 4-11-28—p. 13.
—gloss vs. clear finish. 7-4-28—p. 14.
- Laws, refrigeration, comparison of Canada and Florida. 2-29-28—p. 9.
- Lubricants, selection of. 1-4-28—p. 10.
- Lubrication of compressors. 4-25-28—p. 9.
- Manufacture of refrigerators, high lights of. 1-4-28—p. 14.
- Markets, U. S. world survey of, for electric refrigeration. 5-23-28—p. 17.
—for electric refrigerator in Columbia. 6-20-28—p. 10.
- for electric refrigerator in France. 7-4-28—p. 12.
—for electric refrigerator in Aden Arabia. 7-18-28—p. 1.
—for electric refrigerator in Chile. 8-1-28—p. 7.
- Mechanical refrigeration used for shipping perishables in Europe. 8-1-28—p. 10.
- Merchandising, N. E. L. A. central station plan of. 2-1-28—p. 6.
—four principles of. 2-15-28—p. 5.
—methods of ice industry. 6-6-28—p. 9.
- Milk Cooler, Wisconsin farms good market for. 2-29-28—p. 4.
—servicing made easy for dealer by Haven Co. 5-9-28—p. 12.
- Milk cooling, costs of reduced by electric refrigeration. 7-18-28—p. 5.
- Model homes, installations of electric refrigerators in. 7-18-28—p. 2-4.
- Model kitchen, (photo). 11-23-27—p. 5.
- Moderate priced machines should be concentrated on by industry. 10-12-27—p. 2.
- Moisture, condensation of, prevented by new doors. 10-12-27—p. 8.
- Mortuary refrigerator, (photo). 3-28-28—p. 3.
- Motor, improvements explained in design of. 10-26-27—p. 1.
—meeting in Chicago. 12-21-27—p. 4.
—washing machines, no restrictions on. 2-1-28—p. 20.
—manufacturers to spend 1 million to improve. specifications for electric refrigerator. 2-29-28—p. 13.
—for electric refrigerator offered by Day Fan Co. 3-28-28—p. 22.
—condenser type, advantages are discussed. 3-28-28—p. 22.
—must function in spite of neglect. 5-23-28—p. 21.
—comparison of D. C. and A. C. for refrigeration service. 6-20-28—p. 19.
- Mousse vs. mush. 3-14-28—p. 1.
- Multiple system, pros and cons of for apartment houses. 5-9-28—p. 5.
—three main types of, explained. 12-7-27—p. 8.
—regulations of. 8-1-28—p. 1.
—installation, Copeland, in Pittsburgh (photo). 8-1-28—p. 1.
—opposed by Wilson, F. 8-1-28—p. 12.
—installation, Kelvinator, in Detroit (photo). 8-1-28—p. 16.
—installation, Norge, in Detroit (photo). 8-15-28—p. 1.
—installation, Copeland in Detroit (photo). 8-15-28—p. 12.
- Oil Burner, is result of war days. 9-14-27—p. 16.
—and refrigerator split overhead costs. 2-1-28—p. 15.
—and refrigeration, how lines dovetail for profits. 8-1-28—p. 4.
—dealer, advantages to, of selling electric refrigerators. 8-1-28—p. 5.
—and refrigeration keeps sales steady. 8-1-28—p. 6.
- Ordinance, of Lakeland, Fla. 1-18-28—p. 8.
- Patents, refrigeration, classified list of. 1-4-28—p. 21.
- Plan your work. 8-15-28—p. 9.
- Plumbing, refrigeration side line of. 3-28-28—p. 14.
- Poster, corrugated board used for (photo). 9-14-27—p. 7.
—of New York Edison Co. (photo). 3-28-28—p. 1; 8-15-28—p. 8.
- Postoffice has refrigeration system. 12-7-27—p. 7.
- Production, mass (editorial). 3-14-28—p. 8.
—big, is it an advantage? 3-28-28—p. 13.
—figures (editorial). 6-6-28—p. 10.
- Profits plus good will. 6-20-28—p. 6.
- Public needs more druggery killers. 9-28-27—p. 7.
- Publicity (editorial). 2-15-28—p. 8.
—how to write acceptable editorial copy for. 3-28-28—p. 16.
—ice cube stunt for. 4-11-28—p. 11.
- Quality will determine future of industry. 10-12-27—p. 2.
- Questions of housewives on electric refrigeration are answered. 8-15-28—p. 2.
- Radio and refrigerator combination works well in Kansas City. 10-26-27—p. 1.
—keeps the sales curve up. 10-26-27—p. 1.
—dealer pushes refrigerators 8 months in year. 10-26-27—p. 1.
—complimentary merchandise (editorial). 10-26-27—p. 6.
—second, refrigeration first for maximum profits. 11-23-27—p. 4.
—dealer says sell radios to men, refrigerators to women. 11-23-27—p. 5.
—dealer pushing refrigeration (photo). 11-23-27—p. 11.
—advantages of over exclusive shop. 12-7-27—p. 7.
—makes good combination. 2-1-28—p. 18.
—refrigerator steals place of. 8-1-28—p. 13.
—industry needs statistics. 2-1-28—p. 21.
- Recipes for salad. 7-4-28—p. 2.
—pineapple parfait. 7-4-28—p. 16.
—lemon juice cubes. 8-15-28—p. 4.
—fruit cocktail. 8-15-28—p. 7.
- Refreshment stands, using electric refrigeration 8-15-28—p. 13-14.
- Refrigerants, would prohibit noxious. 3-28-28—p. 4.
- Refrigeration, 60 per cent of homes without. 9-14-27—p. 6.
—endorsed by Detroit Food Show. 11-23-27—p. 1.
—in the Christmas budget. 11-23-27—p. 1.
—in steps of auto industry. 11-23-27—p. 4.
—teas, how to conduct them. 5-9-28—p. 9.
—history depicted at convention. 7-18-28—p. 12.
—cars, methods used in Europe for. 8-1-28—p. 1.
—five millions will be spent on. 8-15-28—p. 2.
—adequate insulation and air circulation important factors of. 8-15-28—p. 8.
—ships, citrus cargo sent in. 12-7-25—p. 15.
—of Ford Motor Co. 8-15-28—p. 2.
—Pacific Coast line to equip ships. 8-15-28—p. 2.
- Refrigerated truck preserves ice cream on 2,000 mile trip (photo). 12-7-27—p. 11.
—makes shopping easy (photo). 1-18-28—p. 2.
—to be made by Baird Co. 3-14-28—p. 2.
- Refrigerator plays prominent part in new movie releases. 11-23-27—p. 7.
- Related merchandise (editorial). 8-1-28—p. 8.
- Retailing, automatic (editorial). 7-18-28—p. 8.
- Rural electrification means market for electric refrigerators. 9-28-27—p. 5.
- Texas Power Companies making survey of. 11-23-27—p. 10.
—increases of. 11-23-27—p. 16.
—service is being extended rapidly. 6-20-28—p. 4.
- Safety (editorial). 6-20-28—p. 12.
- Safety Codes, New York engineers offer amendments to. 11-9-27—p. 1.
—New York, has final hearing. 11-23-27—p. 1.
—New York, adopted. 1-4-28—p. 25.
- Ohio, revisions of. 4-25-28—p. 5.
—District of Columbia. 4-25-28—p. 6.
—National, considered at meetings. 7-4-28—p. 1.
—National, text of. 7-4-28—p. 5.
—Cleveland, proposed for. 7-4-28—p. 7.
—Cleveland, proposed changes in. 7-4-28—p. 7.
—National, changes recommended by engineers. 8-18-28—p. 13.
—publication of discussed. 8-1-28—p. 8-9.
- Salesman, qualifications of. 6-6-28—p. 26.
—compensation of. 6-20-28—p. 17.
- Sales talk, dictaphone record of. 8-15-28—p. 11.
- Selling, salesmen's compensation for. 9-14-27—p. 3.
—methods of Philadelphia distributor. 9-28-27—p. 7.
—in winter months. 10-26-27—p. 3.
—sodas and electric refrigerators. 11-23-27—p. 6.
—in winter, arguments for. 11-23-27—p. 8.
—by direct mail and canvass gets orders. 12-7-27—p. 1.
—by floor salesman, results of. 12-21-27—p. 5.
—force, makeup of. 1-4-28—p. 16.
—in small towns. 1-18-28—p. 6; 4-11-28—p. 7.
—"the idea" (editorial). 2-1-28—p. 12.
—the idea of electric refrigeration. 2-1-28—p. 3; 3-14-28—p. 16.
—refrigeration twelve months each year. 2-1-28—p. 3.
—methods of hardware store. 2-1-28—p. 18.
—during Christmas holidays. 2-1-28—p. 23.
—methods of Georgia dealer. 2-15-28—p. 6.
—by telephone. 2-29-28—p. 7.
—by providing salesman with fine prospect list. 2-29-28—p. 10.
—N. E. L. A. plan, getting local interests behind. 3-14-28—p. 6.
—short (editorial). 4-25-28—p. 8.
—the tough nut customer. 5-9-28—p. 10.
—electric refrigeration as unit in kitchen ensembles. 5-9-28—p. 11.
—with help of humble nature. 5-9-28—p. 13.
—in pre-season. 5-9-28—p. 15.
—the idea plan making good. 5-23-28—p. 13.
—territories, should they be zoned. 6-6-28—p. 7.
—co-operation with service dept. 6-6-28—p. 15.
—electrical range is harder than refrigerator. 6-20-28—p. 4.
—electric refrigeration by health appeal. 6-20-28—p. 11.
—with aid of satisfied owners. 6-20-28—p. 15.
—by solution of the customers' problem. 6-20-28—p. 8.
—in summer with winter arguments. 6-20-28—p. 3.
—by telephone proves effective. 7-18-28—p. 10.
—mistakes of. 7-18-28—p. 11.
—by classifying prospects. 7-18-28—p. 15.
—best methods of, explained in course. 8-1-28—p. 3.
—how to make it more profitable. 8-1-28—p. 11.
—strange quarters. 8-15-28—p. 7.
—in Santa Fe. 8-15-28—p. 10.
—in and near Omaha. 8-15-28—p. 13.
—sales manager's view of. 8-15-28—p. 15.
- Service, overhead cut by bonus. 10-26-27—p. 10.
—suggestions for cutting expenditures. 11-23-28—p. 10.
—follow sale and give. 11-23-28—p. 12.
—cards offered by the News. 1-4-28—p. 22.
—keeps customers satisfied. 2-1-28—p. 23.
—solving problems of. 2-29-28—p. 10.
—department is weakest link in merchandising chain. 3-28-28—p. 7.
—department should co-operate with sales department. 6-6-28—p. 16.
—don't talk it, give it. 7-4-28—p. 10.
—when making installation saves many a call later. 7-4-28—p. 11.
—saved by proper installation. 8-15-28—p. 9.
- Shelf, patent claims on. 8-15-28—p. 6.
- Shipping costs of. 2-1-28—p. 19.
—refrigerator to export market, costs of. 2-15-28—p. 14.
- Silica Gel, process to be marketed. 2-15-28—p. 25.
—what it is, and how it works. 3-28-28—p. 25.
—explanation of units for. 4-25-28—p. 1.
—subsidiary organized for. 5-23-28—p. 11.
—capillary action of crystals of. 6-6-28—p. 21.
—unit (photo). 7-4-28—p. 12.
- Specifications for electric refrigerators (see electric refrigeration).
- Stacker, for refrigerators (photo). 6-20-28—p. 18.
- Sulphur dioxide research suggested. 10-12-27—p. 8.
- Tests, of electric refrigerators by Good House Keeping Institute. 2-1-28—p. 24.
—comparative (editorial). 4-11-28—p. 8.
—laboratory, value of. 5-9-28—p. 8.
—of electric refrigerator current consumption. 6-6-28—p. 25.
- Theatre cooling, talk on. 11-9-27—p. 6.
- Transportation of perishables by air. 1-18-28—p. 1.
—of refrigerants. 3-14-28—p. 1.
- University, N. Y. lectures on refrigeration. 9-28-27—p. 1.
—N. Y. announces subjects for refrigeration courses. 10-21-27—p. 5.
—N. Y. refrigeration course membership. 11-9-27—p. 7.
—dairy farm of. 11-9-27—p. 6.
- University, N. Y. refrigeration course. 2-1-28—p. 17; 3-14-28—p. 2; 5-9-28—p. 1.
- Valves, method of production. 1-4-28—p. 12.
—expansion. 3-28-28—p. 23.
—standardization of connections for. 3-28-28—p. 27.
—stream control, for water cooler. 5-23-28—p. 24.
- Vending machine, units for. 1-4-28—p. 13.
—(editorial). 7-18-28—p. 8.
- Water coolers, valve cuts waste of water. 5-23-28—p. 24.
—unit added by Copeland. 8-1-28—p. 16.
—study of system. 10-26-27—p. 9.
—two types of by Cleveland Iceless Cooler. 1-4-28—p. 8.
—standards for. 2-15-28—p. 9.
—importance of safety measures for. 2-15-28—p. 9.
—construction and installation of. 2-15-28—p. 10.
—various makes of. 2-15-28—p. 11-12-13.
—direct principle used in Bilt Rite. 3-28-28—p. 20.
—profits in selling. 1-4-28—p. 32.
- Water cooling problems. 2-15-28—p. 11.
—profitable field for development. 2-15-28—p. 9.
- Window space, loan of, pays good returns. 4-25-28—p. 10.
- Window displays, photos of Servel. 10-12-27—p. 3.
—Frigidaire. 10-26-27—p. 6; 11-23-27—p. 6; 12-7-27—p. 5; 4-25-28—p. 1; 5-9-28—p. 19; 5-23-28—p. 8; 6-6-28—p. 8; 6-20-28—p. 22; 8-1-28—p. 2; 8-15-28—p. 7.
—General Electric. 12-7-27—p. 6; 6-20-28—p. 8; 6-20-28—p. 10; 6-20-28—p. 15; 7-18-28—p. 8; 8-15-28—p. 6.
—Kelvinator. 12-7-27—p. 10; 3-28-28—p. 10; 5-23-28—p. 3; 6-20-28—p. 14; 7-4-28—p. 8; 8-1-28—p. 1; 8-15-28—p. 10.
—Copeland. 12-21-27—p. 7; 5-23-28—p. 6; 7-4-28—p. 8.
—Wayne. 2-29-28—p. 6.
—Zerozone. 3-14-28—p. 16.
—Welsbach. 3-28-28—p. 18; 7-18-28—p. 1; 8-15-28—p. 16.
—Universal Cooler. 6-6-28—p. 11.
—Servel. 7-4-28—p. 6; 7-4-28—p. 15; 8-1-28—p. 7.
—Seeger. 8-1-28—p. 1.
—Iroquois. 8-1-28—p. 6.